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FREE TRADE AND THE UNITED STATES - MEXICO BORDERLANDS

A REGIONAL REPORT BY BAYLOR UNIVERSITY

PREPARED FOR THE USE OF THE

SUBCOMMITTEE ON ECONOMIC GROWTH, TRADE AND TAXES

OF THE

JOINT ECONOMIC COMMITTEE CONGRESS OF THE UNITED STATES

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LETTER OF TRANSMITTAL

June 24, 1991.

Hon. Paul S. Sarbanes
Chairman, Joint Economic Committee, Congress of the United States, Washington, D.C.

Dear Mr. Chairman: The Congress should be taking an active role in monitoring negotiations underway for a Free Trade Agreement with Mexico. To assist in that effort, I am pleased to transmit herewith a regional report prepared by a research team, headquartered at Baylor University in Waco, Texas, entitled "Free Trade and The United States-Mexico Borderlands." The report features analyses on various aspects of the proposed United States-Mexico trade agreement, including environmental, retail, and agricultural questions.

The report was prepared by researchers in Mexico and located at various institutions across the American Southwest and California, under the direction of Professor Glen E. Lich, now at the University of Winnipeg, and Professor Joseph A. McKinney, Baylor University.

The report represents the views of the authors and does not necessarily reflect the views of the Subcommittee.

Sincerely,

Lloyd Bentsen,
Chairman, Subcommittee on Economic Growth, Trade, and Taxes.

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FREE TRADE

AND THE

UNITED STATES - MEXICO BORDERLANDS

A REGIONAL REPORT TO THE

JOINT ECONOMIC COMMITTEE

Project Directors

Glen E. Lich
University of Winnipeg

and
Joseph A. McKinney
Baylor University

Executive Summary

This report is a draft assembled by the Regional Studies Center at Baylor University—in cooperation with similar centers in the ten United States and Mexico border states from Texas and Tamaulipas to the two Californias— and is divided into five major sections dealing with the binational borderlands, major economic sectors, contextual issues like environment and education, an econometric model, and Mexican perspectives. Thirty-five authors have contributed to the report. The project directors are Glen E. Lich and Joseph A. McKinney.

Overview: Advantages and Disadvantages

For the most part, the study is consistent with the October 1990 report of the United States International Trade Commission—*Review of Trade and Investment Liberalization Measures by Mexico and Prospects for Future United States-Mexico Relations; Phase II: Summary of Views on Prospects for Future United States-Mexican Relations* (USITC Publication 2326) and the February 1991 report *Phase III: The Likely Impact on the United States of a Free Trade Agreement with Mexico* (USITC Publication 2353), with the testimony of United States Trade Representative Carla Hills before the House Ways and Means Committee and the Senate Finance Committee, and with a large number of analyses by scholars at academic institutions and research institutes in the United States, Canada and Mexico which have become available since this research was begun. The border region will be particularly affected by the free trade agreement. The needs of the border region have not in the past always received the attention that they deserve. The free trade agreement will bring needed attention to the border region, and may provide an opportunity to address problems which have previously been ignored.

The stimulus to economic growth along the border that can be expected to result from the agreement will help to alleviate some of the social problems experienced by the region. However, deficiencies in the infrastructure and public services in the region will be exacerbated by rapid economic growth, and if these deficiencies are not swiftly addressed, theymay in fact hinder that growth. In addition, economic growth along the border can be expected to cause environmental degradation unless measures are implemented to prevent it.

Part I of this document consists of overviews of each of the three subregions along the border. In looking at the Texas-Tamaulipas-Nuevo Leon-Coahuila subregion, Khosrow Fatemi of Laredo State University points out that the border region will be affected more seriously and more fundamentally than any other region of the country. Since the United States side of the border includes some of the least industrialized and least diversified regions of the country, it is particularly susceptible to economic adversity. Therefore the border region should receive special consideration during the negotiations and in adjustment programs.

In looking at the El Paso-New Mexico-Arizona-Sonora-Chihuahau subregion, Edward J. Williams of the University of Arizona notes that the benefits of free trade will increase the wealth necessary for addressing numerous problems in the United States and Mexico, and will also serve the basic security interests of the United States. The greater prosperity will be particularly beneficial to the economically depressed border region. However, the increased economic activity will be a mixed blessing, in that burgeoning population, environmental degradation and increased social problems likely will result. Professor Williams suggests several specific policies to be undertaken bilaterally to address these potential problems.

Paul Ganster of San Diego State University provides the subregional overview for the two Californias. Professor Ganster details the advantages and disadvantages of a free trade agreement for this subregion, and makes specific recommendations for Congress to consider as the free trade agreement is negotiated.

Part II of the study examines some of the major sectors and topics for negotiation. Agriculture is considered by Gary W. Williams and C. Parr Rosson, both of Texas A & M University. Professors Williams and Rosson note that free trade in agricultural products will imply both greater U. S. export opportunities and increased competitive import threat. They further point out that achieving free trade in agricultural products will require negotiated reductions in governmental support programs in both countries, as well as harmonization of plant and animal grades, standards, and health requirements.

The energy sector is considered by Charles Capone, formerly of Baylor University and now with the U. S. Department of Housing and Urban Development. Dr. Capone takes note of the capital crisis facing the Mexican oil industry, and predicts that eventually a way will be found to permit foreign equity participation in primary petroleum operations there. He points to a number of ways in which freer trade in energy could benefit both Mexico and the United States.

The matter of retail trade is of prime concern to merchants in the border region, since for many of them sales to Mexicans make up a sizeable percentage of their total revenues. Richard Vasey of Dillard's

Southwest Division in El Paso judges that the long range benefits of free trade in the border region will be positive, but that in the short run some retailers will be adversely affected. Mr. Vasey recommends several measures to help assure that the retail trade sector benefits from free trade.

The manufacturing sector is considered by Stephen R. Jenner of San Diego State University. Professor Jenner points to the integrated manufacturing which already exists along the border, and identifies specific issues which should be monitored by Congress during the negotiations to ensure that the manufacturing sector derives optimal benefit from free trade.

Financial services will also be sector of great importance in the free trade negotiations. Dr. Jesus L. Gutierrez of Union National Bank of Texas in Laredo, Texas puts this issue in historical perspective, and discusses the possible roles of United States and Mexican banks under a free trade agreement between the two countries.

Another sensitive area for the trade negotiations is that of investments, which is considered in this report by Stephen Guisinger of the University of Texas at Dallas. Professor Guisinger points out that the effects of a free trade agreement on investment will be importantly influenced by the types of investment rules adopted. He then provides suggestions concerning possible policy changes by Mexico which would be favorable to an increased level of foreign investment there.

The final contribution to Part II is a discussion of intellectual property issues by Lawrence J. Johnson, R. Blair Krueger, Jr., and Joe W. Pitts III, all of Baker and McKenzie Attorneys at Law. These authors describe Mexico's intellectual property regime, describe the challenges facing free trade negotiations in the intellectual property area, and offer goals in this area for the free trade negotiations.

Part III of this report considers a number of contextual issues which will have to be considered during the course of the negotiations. The first of these is border infrastructure, and is addressed by David J. Molina and Steve L. Cobb, both of the University of North Texas. Professors Molina and Cobb look at the degree to which the infrastructure in the border region is adequate for the expanded volume of trade which will result from a free trade agreement. They point out that several types of border infrastructure will come under strain as trade increases, and suggest that the burden for providing such infrastructure should fall less on the relatively poor border counties and more on those outside the region who will benefit from expanded trade.

Clifford G. Metzner, Jr. of San Diego State University addresses the environmental issues which will arise along the border as a result of the

free trade agreement. Professor Metzner points out that the expansion of bilateral trade and the resultant border demographic problems will increase the strain on the environment of the border region. He identifies several priority issues which must be addressed in order to prevent negative transborder environmental impacts.

Joseph A. McKinney considers labor issues which need to be considered in a free trade agreement between the United States and Mexico. He notes that some displacement of labor can be expected, and that steps should be taken to ensure that trade adjustment assistance programs are adequate. He also recommends gradual removal of trade restrictions to minimize adjustment costs, and points to the potential for improving the wage structure of the United States if appropriate measures are taken in response to free trade with Mexico.

Ambassador Abelardo Valdez discusses the possibility of extending the maquiladora concept to make full co-production a centerpiece of the free trade negotiations. Ambassador Valdez proposes immediate and complete free trade treatment for products of co-production ventures, i. e., those involving United States and Mexican partner firms. He views such ventures as a way of increasing the international competitiveness of firms, of minimizing dislocation costs from a free trade agreement, and of reducing opposition to the agreement in both countries.

The impact of a United States-Mexico free trade agreement on labor migration is considered by Steven L. Cobb and David J. Molina, both of the University of North Texas. Professors Cobb and Molina discuss the determinants of migration and make inferences concerning the effect of a free trade agreement upon migration. They conclude that a free trade agreement should decrease Mexican migration to the United States to some degree, but point out that the impact on migration will depend heavily on the shape of the final agreement and upon other policies.

The social and political implications of a free trade agreement are considered by Andrew Kirby and Melinda Laituri of the University of Arizona. They point out that free trade will legitimate the massive economic and social interaction that already exists across the border. They identify several potential advantages, and a few possible disadvantages, of free trade from a social and political point of view.

The implications of a free trade agreement for education are considered by Paul Ganster of San Diego State University. Professor Ganster points out that the educational systems of the U. S. border region will be particularly challenged by the effects of free trade, but will also encounter unprecedented opportunities as well. He recommends elimination of barriers to academic free trade and exploration of innovative funding mechanisms for funding the educational needs and opportunities provided by a free trade agreement.

Cultural issues related to free trade are discussed by Robert F. O'Connor, Jr. of the Texas Committee for the Humanities. Dr. O'Connor points out that prospects for increased economic interaction between the United States and Mexico increases the need for dialogue concerning ways to increase our understanding of each other as a people and society. He gives several suggestions for how increased cultural understanding might be achieved.

Legal issues arising from a free trade agreement are discussed by Rodolpho Sandoval of the University of Texas at San Antonio. Professor Sandoval identifies foreign investment law, trade in services, intellectual property law, subsidies, and dispute resolution mechanisms as key areas of a free trade agreement from the standpoint of the legal issues involved.

Part IV of this report consists of observations and analysis by M. Ray Perryman of Baylor University and Perryman Consultants, Inc. of the impact of Mexican trade on the Texas economy. Dr. Perryman presents an overview of the Mexican economy and of developments in Mexican trade philosophy. He then presents a review of three principal Texas export industries to Mexico: agriculture, telecommunications and computers. Using the Texas Multi-Regional Impact Assessment System of Perryman Consultants, he then presents calculations of the direct, indirect and induced effects of production for export to Mexico on overall business activity in Texas. Then, as an illustration of the potential impact of a free trade agreement on the Texas economy, he calculates the gain in sales and employment that would result from removal of the Mexican tariff on telecommunications equipment, and the benefits to Texas consumers from the elimination of tariffs on televisions and related equipment imported from Mexico.

Part V of this study presents perspectives from four major Mexican academic and research institutions concerning a free trade agreement between the United States and Mexico. The first of these, by Mario Dávila Flores of the Autonomous University of Coahuila points out that Mexico has already made radical changes in its economy, including the lowering of its trade barriers. Professor Davila suggests that Mexico is eager to see a similar opening of the United States market to Mexican products. He further suggests that Mexico will need United States support, either directly or at the multilateral lending institutions, to help finance the expenditures in education and infrastructure necessitated by increased trade. Also, Mexico is eager for the transfer of technology from the United States both to spur economic progress and to help control environmental pollution.

The second Mexican perspective is from Bernardo Gonzalez-Arechiga and Eduardo Zepeda Miramontes of El Colegio de la Frontera Norte. Professors Gonzalez-Arechiga and Zepeda express the opinion

that a closer bilateral trade relation is only a second best alternative to a multilateral free trade framework. They also point out that because of the disparities in economic development between the United States and Mexico, Mexico may need special consideration with regard to the rate at which trade barriers are reduced, and some assistance with economic adjustment. They also take note of the asymmetries in customs and immigration administrative practices between the two countries which can impede trade, and stress the importance of full consideration of environmental issues in the negotiations.

The third Mexican perspective is from a team of researchers at the Autonomous National University of Mexico. These scholars also note the economic disparity of the United States and Mexico and the challenges that this disparity poses for the negotiations. They further discuss the energy sector, telecommunications, the maquiladoras, regional issues, and the social implications of a free trade agreement. They warn against considering the free trade agreement as a panacea for either country, and point out that much bilateral cooperation will be required for it to function well.

The final Mexican perspective is an afterword by Dr. Rafael Rangel Sostmann, System President of the Instituto Tecnólogico y de Estudios Superiores de Monterrey. Dr. Rangel points to the new opportunities for both countries which will be provided by a free trade agreement, but also notes that a great effort will be required of both nations to minimize negative impacts and to provide the infrastructure necessary for taking full advantage of the agreement.

The consensus opinion of the contributors to this study is that the free trade is potentially beneficial to both countries, especially so for the border region, in the long run. But short run problems can be expected for some sectors. Careful planning and implementation of the agreement can minimize these problems. The cooperation and consultation arising from the free trade talks should provide the opportunity for unprecedented binational cooperation to address regional problems.

Major Issues for Consideration

There are seven major points emphasized in this report which we recommend for consideration by members of the United States Senate and House of Representatives.

1. The establishment of a permanent USA-Mexico Border Commission: In light of the probability that the most difficult problems of effecting and sustaining such an agreement with Mexico will arise in connection with immediate short-term issues of how free trade would promote the national interests of *both* Mexico and the United States; in light too of the very high importance to *both* countries of sustained positive developments in terms of security and growth across the complete spectrum of relations between the two countries; and, third, in light of the broad impact of such an agreement on binational relations, we recommend the establishment of an **expertly-staffed** commission capable of addressing not only economic but also social, cultural, environmental, and political issues. This commission will require adequate resources and sufficiently high priority on the part of both governments to empower it to serve as an *effective* coordinating center for the wide range of issues related to free trade negotiation, for additional issues which one or both countries require to be addressed in conjunction with trade negotiations, and for the various single-subject bilateral boards and agencies already in place which effect what is sometimes at best a disjunctive United States–Mexico policy.

Cooperative programs on both sides of the border are also vital, linking cities with other cities, universities with universities and social services with social services. Efforts in this direction should be concentrated on the essential fundamentals in social, cultural, environmental, and educational programs. Formal agreements should be reached for cooperation in a variety of specific areas--starting with education, historical and environmental preservation, and sister cities.

Active protection of public monuments as a sustainable resource--along the lines of a current initiative of the Conference on Security and Cooperation in Europe--is likewise important. Such protection assumes measures to protect and conserve the natural as well as the built cultural environment of the borderlands which contain some of the most scenic and precious landscapes of the two countries. Specialists on the borderlands will need funds not only for such preservation, but also for the study of environmental conditions, regional development, and cultural patrimony.

The foundation of the cultural dimension, as well as of the economic dimension, is <u>place</u>. Culture is admittedly not a clear and easily definable matter in the context of diplomatic relations, and all too often culture and the architecture for joint action in this sphere are ignored as sub-elements of economic development packages.

Inclusion of cultural, or human, aspects in these negotiations is hard, not only because often ignored, but also because the goals seem to be at odds. Whereas in trade and technological spheres we often speak of the need for harmonization, in cultural spheres we often seek the opposite. We think,

therefore, that trade and culture are not compatible, but all recent experience proves the shortsightedness of this view.

Ample precedents exist for the safeguarding of the borderlands' heritage even as trade in the region flourishes. At an early state of implementation (but designed to be continental in scope) is "The Europe Project: A City Network." Regio Basiliensis, the greater Aschen program, and the Saar-Lorraine-Luxembourg regional project are leading international examples from Western Europe. The Pentagonale and the Alpen-Adria dialogues are excellent models from Central Europe. The Conference on Security and Cooperation in Europe is also working in this area in cooperation with UNESCO, the European Community, and the Council of Europe.

As we move toward the reality of North American free trade, we should profit from these examples and should strongly consider also the establishment of a special bilateral or trilateral regional cooperation commission (a) to study applications for North America of the experience of Europeans who are a generation ahead of us in thie area; (b) to effect liaison among national agencies of the two or three countries and international agencies like the Organization of American States and the United Nations; and (c) to support grass roots actions to build North American versions of the European models.

2. The development of a comprehensive public information program focused on Texas, New Mexico, Arizona, and California: One of the consistent arguments running through summaries of congressional and other hearings, as well as through symposia and other similar meetings is that closer trade relations with Mexico will *(a)* help to develop or *(b)* hamper the development of the USA-Mexico borderlands. Public opinion and the news media seem to be divided almost in extremes on this point. Little reliable information is available on a regular basis with regard to how the general public should think about trade and related issues and correspondingly with regard to what the American people can expect from various kinds of policy relations with Mexico. Likewise, there is a general dearth of information on multicultural, environmental, and educational connections between the United States and Mexico.

Public education through the media, schools, libraries, museums, and state humanities programs is vital as we negotiate and prepare to enter into free trade, as well as later. Curricula, textbooks, and public programs should enhance our understanding of our shared cultural heritages and correspondingly of our cultural diversity. The most common "downside" of Canada-United States free trade is negative public opinion. Policy makers should be aware of the importance of this dimension from the outset of negotiations and should do all they can to promote cooperation and understanding, to guide people into reasonable expectations, and to develop a desire for increased contact at the grass roots--both bilaterally and trilaterally. In so doing, we would correct an

error of omission during the negotiation of the agreement between Canada and the United States.

That the economic impact of free trade on the ten borderland states will be positive is the short- mid-, and long-terms will be assured largely by the negotiators and guided by control measures which policy makers can apply to integrate the markets of Mexico and the United States and Canada. But the human dimensions--which ultimately will prove to be more important than the economic dimensions--will not be so easily controlled and guided toward positive changes.

At stake for millions of borderlanders is not only the general quality of life, but also the culture. To prepare people for changes in these areas, public awareness needs to be improved so that people in the binational region understand that their cultural heritage is not static but is a living tissue. As the Hispanic character of the Southwest increases and the Anglo-American presence in northern Mexico becomes more pervasive, negative reaction will be minimized if people learn to understand the unique history of the borderlands and the variety of ways in which the parts of this region have always interacted with each other. They must also recognize that breaking down borders does not threaten the preservation of diversity as long as we remain tolerant of differences and respect the consequences of our common heritage of cultural pluralism.

3. The segregation of trade negotiations from other issues: Although several prominent national leaders have encouraged the US administration to include drug interdiction, domestic political reform in Mexico, and illegal migration in free trade negotiations, the general opinion among specialists in the United States is consistent that—while all three issues may warrant high-level discussion—the trade negotiations should stick to trade. Inclusion of an agenda for Mexican political reform in deliberations as complicated, time-sensitive, and potentially divisive as economic and trade policy is to risk the failure of the trade negotiations as well as to impose requirements on the Mexican leadership which will do nothing to help that country's most reform-minded officials to effect improvements. Inclusion in these negotiations of such important—but peripheral—issues as drugs, political reform, and migration will not permit efficient and effective negotiations.

Environmental issues, however, should **not** be thus excluded since industrial development and industrial policy are much more closely and demonstrably connected with pollution than drugs, politics, and migration are practically connected with trade. We therefore recommend that positive and proactive environmental considerations be incorporated into every appropriate phase and area of the free trade negotiations. Safeguarding the environment, while deemed a "luxury issue" by some, is a win-win or a lose-lose situation—not one in which one country needs to feel sensitive while the other takes the moral

high ground. Mexico has, in fact, recently expressed the desire and intention to upgrade environmental standards and regulations.

4. Measures to ease the process of adjustment: As in any program of international trade liberalization, some industries will benefit, and others will have to contract. Industries in the United States which may be adversely affected by increased trade with Mexico include textiles and apparel, ceramics, steel, cement, leather goods, fresh fruits and vegetables, sugar, and consumer electronics. Those in Mexico likely to be adversely affected include pharmaceuticals, machinery, wheat, corn, telecommunications, and finance. International trade theory and previous experience with trade liberalization both affirm that the benefits of removing trade barriers generally far outweigh the costs. The benefits arise both from lower costs to consumers and increased opportunities for export industries. The key to assuring that the benefits outweigh the costs is to implement trade liberalization in sensitive industries slowly, for the costs of adjustment are much less if the adjustment is carried out gradually. What is important is that a commitment to eventual free trade between the two countries be established soon, for once such commitment is made confidence in the long range economic prospects of the Mexican economy will be improved, with a resultant increase in the level of investment there.

In addition to the *gradual* reduction of trade barriers, other policy actions can ease the adjustment process. Safeguard measures such as the escape clause can be used to counteract unforeseen adjustment problems. However, such measures must be used with great caution, for if their availability makes potential investors skeptical of the permanence of trade liberalization, the stimulus to investment expected of the agreement will not materialize. This has been a major reason for the ineffectiveness of the Latin American Free Trade Association, and its successor, the Latin American Integration Association. Much preferable to safeguard measures would be truly effective trade adjustment assistance measures. The winners from trade liberalization gain more than enough to compensate the losers with a surplus remaining. But income redistribution is necessary for this compensation to be effected. Additional revenue measures may well be required if effective adjustment assistance is to be provided to workers, industries and communities adversely affected by the trade liberalization. If so, serious consideration should be given to a value added tax as the source of such revenues.

5. Priority subjects for negotiation: Important concessions which might reasonably be expected of Mexico are the gradual removal of all import tariffs, elimination of remaining import licenses, elimination of export performance requirements now imposed on foreign direct investors, adoption of the principle of national treatment for foreign investors in most industries, and further strengthening of intellectual property protection. Furthermore, Mexico and the United States will both benefit if ways can be found to permit the infusion of

additional foreign capital into the development of Mexico's considerable energy resources. Energy is a very sensitive matter in Mexico, however, and care should be taken to dispel the notion that the sole interest of the United States in a free trade agreement is the gaining of access to Mexico's energy resources. However, Mexico should reasonably be expected to give assurances of continued access similar to those given by Canada in the United States-Canada free trade agreement.

6. The time frame for trilateral negotiations due to their complexity: The presence of Canada in the negotiations, making them trilateral as opposed to bilateral, will inevitably make the negotiations more complex. This means that the negotiations will either take longer to conclude or that more issues will have to be left out of the trilateral agreement. Some of the particularly difficult areas will be agriculture, investment, energy, government procurement, and dispute settlement. Some have suggested that an umbrella trilateral agreement be negotiated quickly for noncontentious issues, with the more contentious issues derogated to bilateral agreements. While some issues may have to be handled through bilateral agreements, a trilateral agreement carefully worked out should have fewer implementation problems. The additional time and effort involved in trilateral negotiations should be worth the effort over the long run.

7. The importance of consistency with multilateral trade objectives: Care should be taken in negotiating the agreement to ensure that it is supportive of, and complementary to, multilateral trade liberalization efforts. For regional economic integration schemes to be welfare-enhancing, trade barriers to nonmembers should be kept as low as possible in order to prevent trade diversion. This is especially important since the United States-Mexico-Canada agreement may well be the precursor to a hemispheric free trade area which President George Bush has proposed in his Enterprise for the Americas initiative. Already there are several new free trade initiatives in the hemisphere. Chile, Venezuela, Colombia and Mexico have announced that they will initiate free trade talks. Brazil, Argentina, Uruguay and Paraguay have announced plans for a Southern Cone common market by the end of 1994. Mexico and the Central American countries hope to have a free trade area by the end of 1996. Chile has approached the United States about the possibility of a free trade agreement. In all of these efforts the aim should be trade liberalization within the region, without hindering access to countries outside the agreements. The United States-Mexico-Canada negotiations can set an important example in this regard.

In closing, we recommend that trade negotiations with Mexico be considered a primary foreign policy issue for the United States in that a free trade accord with Mexico will become the most significant framework agreement for further developments toward an integrated, hemispheric trade policy. The way in which we approach such negotiations is, therefore, as important as the quality of the agreement which might result from the negotiations.

With Canada included in the negotiations making them trilateral, many complex issues will have to be addressed. The desire to reach a quick agreement in order to avoid the political pressures of a presidential election year in the United States is understandable. However, a hasty agreement which fails to address potential problem areas may be regretted later. The negotiations should be given sufficient time for a complete and well-thought-out agreement to be reached.

We recommend that the United States devote sufficient personnel and resources to the negotiations to ensure that the best possible agreement is achieved. These trade negotiations have the potential for advancing the economic and foreign policy objectives of all three nations. It is important that the negotiations be approached with emphasis upon the mutual benefits of free trade, with due consideration given to the best interests of our trading partners as well as our own objectives.

How Do We Make One Plus One Equal Three?

Abelardo Valdez

The decision of Presidents George Bush and Carlos Salinas de Gortari to negotiate a free trade agreement between the United States and Mexico offers potential for improving the economic performance, competitiveness and living standards of both nations.

No region of either nation stands to benefit more from such an agreement than the United States-Mexico borderlands, nor in any other area is it likely to be more welcome. Historically, its people, isolated from Mexico City and Washington, D.C., have pursued opportunities jointly. Geographical and human ties have fostered cooperation and resulted in a common culture along the border.

The in-depth analysis of the import of the proposed United States-Mexico free trade agreement for the borderlands of the United States and Mexico contained in this report provides a lesson in the "new math" of international trade. It shows how "one plus one" of free trade cooperation can equal "three or more" in economic benefits for both countries.

The U.S.-Mexico borderlands are extensive, extending some two hundred miles southward into Mexico and northward into the United States and stretching from Brownsville/Matamoros westward to San Diego/Tijuana. It includes such cities as Corpus Christi, McAllen, San Antonio, Albuquerque, El Paso, Phoenix and Los Angeles on the U.S. side and Monterrey, Torreon, Hermosillo, Ciudad Juarez and Ensenada in Mexico.

For some 25 years, the factories of the *maquiladora* industry have been humming throughout the United States-Mexico borderlands, utilizing labor, materials and capital from both sides of the border. Each country adds value to goods and services, making them more competitive in the international market than either one, alone, could achieve. The maquiladora has become a vital part of Mexico's economy and an important dimension of the U.S. manufacturing sector. Although limited in scope, capital and labor, the *maquiladora* program has provided valuable experience and a foundation on which to build a full co-production partnership.

The *maquiladora* experiment tested the initiative and creativity of Mexican and U.S. workers and entrepreneurs and challenged them to develop and combine the comparative advantages of each nation. Their success has forged a common business culture along the territorial expanse with common interest which we call "the borderlands."

A free trade agreement that would, among other things, foster the expansion of co-production beyond the maquiladora towards a full economic partnership between capital and labor of both nations, would result in greater economic benefit and opportunity for the people of the United States and Mexico. By combining the best resources of each nation in co-producing and marketing goods and services, the "new math" of free trade would make combining the "one" of Mexico with the "one" of the United States equal "three or more" in their ability to compete more effectively in the international market. In this equation, the sum of "three or more" would represent expanded employment, better and more products at less cost and reduced duplication and more efficient use of resources on both sides of the border. The "one plus one" of free trade can have an infinity of advantages for the peoples of Mexico and the United States.

I am convinced that by developing this new concept of free trade, the United States and Mexico, two nations with varying degrees of economic development, can convert economic disparity into mutual advantage and, by so doing, serve as a model for the rest of the Western Hemisphere. The reports' studious exposition of factors affecting free trade for the borderlands offers an observatory from which to view a possible universe of economic cooperation through free trade among the nations of North America and, subsequently, the entire Western Hemisphere.

As this study explores effects of free trade upon the major borderland economic sectors, readers can place the puzzle pieces into a picture of dynamic commercial activity within the region and between the nations. As people, resources, capital, technology and marketing skills come together--joined with those of Canada--we begin to see how North America could better compete directly with any trade bloc from the East or West.

The report unfolds a tapestry of economic, cultural, environmental, juridical and resource aspects of borderland economic integration. In my view, it is a seminal study, coming at a time of urgent need for the nations of our hemisphere to move towards economic cooperation. As we witness regional economic blocs forming among European and Asian nations, it is imperative that the U.S., Mexico and Canada work towards establishing a full economic partnership.

The difficulties encountered in the Uruguay Round of GATT Negotiations make a free trade agreement with Mexico even more important. In order to maintain an open international trading system, Asia and Europe must recognize that if they wish to have access to the vast North American market, comprised of

the U.S., Mexico and Canada, they must provide equal access to their markets for these three nations.

A free trade agreement with Mexico is the key to the eventual achievement of hemispheric free trade and the linchpin of President Bush's "Enterprise for the Americas" initiative. It is critical that Congress and the Administration work together to create a U.S.-Mexico free trade agreement and that strong bi-partisan support be developed to achieve this goal. Without such support, this initiative may be stalled or frustrated. The stakes are too high for the United States and Mexico to fail.

The new world order emerging from the thaw in East-West relations offers much more than strategic opportunities. It invites us to lead the worldwide effort to open up economies to individual initiative and laws of the marketplace. It urges us to break down protective barriers and seek mutual economic advantage. It beckons us to extend our productivity and innovation into other markets and to accommodate new trades operating within our own. It asks for every nation to provide a "level playing field" for fair and open international commerce. And that is what the United States and Mexico propose to do with their free trade initiative.

I urge a careful study of this report, both as a catalyst for further debate and as a primer on the steps needed to be considered as our nation and the other American republics move towards establishing a hemispheric free trade zone that will serve the best interests of their people and bring the North and the South closer together in their economic endeavors.

Preface

Glen E. Lich and Joseph A. McKinney

The United States has come belatedly to its acknowledgment that Mexico is of paramount importance to this country's well-being. Throughout much of our history political relations between the two countries have been strained. All the while, however, economic relations have grown more extensive and more complex, particularly in the border regions. Mexico has become the third largest trading partner of the United States, after Canada and Japan, and is a location for production sharing by many United States corporations as they have taken advantage of lower labor costs in Mexico in order to remain competitive in the world marketplace. A sizeable component of the United States population has a Mexican heritage. Given these economic and cultural linkages, and the fact that we share a two thousand mile border, the destiny of the two countries is inextricably intertwined. That we should now consider removing artificial barriers to the flow of goods and services between the two countries is entirely appropriate.

The Joint Economic Committee Request

The Regional Studies Center of Baylor University entered into an agreement with the Joint Economic Committee on the 14th day of November of 1990 to furnish the Committee with "a study which would evaluate the economic and environmental impact which the prospective Mexico-United States free trade agreement would have on the regional economies of the four border states." This was envisioned to be a multidisciplinary study which would examine economic and environmental issues from the perspectives of several disciplinary specialties.

Methodology

While the removal of impediments to trade in goods and services is considered primarily an economic matter, the ramifications of such a change are felt throughout society and require consideration from varying viewpoints. In this study we have engaged more than thirty scholars from major research institutes in both the United States and Mexico, from a number of university departments in

each country, as well as some from the private sector. Each participant was asked to provide a brief report of seven to ten pages in his or her area of expertise, including: an executive summary; assumptions upon which the analysis is based; advantages of free trade with regard to the binational region, subregion or economic sector; disadvantages of free trade with regard to binational region, subregion or economic sector; assessments/prospects for free trade; critical factors upon which the assessments are based and/or upon which the prospects are dependent for realizing free trade; and priority issues which Congress might want the Administration to clarify or to monitor during the negotiations.

Organization of the Report

This report is organized into five major parts. Part I presents an overview of the three subregions of the borderlands. This is followed in Part II by an examination of major sectors and topics for negotiation. Part III then addresses a number of contextual issues which are highly relevant to the increased economic integration which will be brought about by the free trade negotiations. Part IV presents the results of some econometric simulations which illustrate the probable effects of free trade on various sectors. In Part V the perspectives of scholars at four important Mexican research institutes provide insight into the concerns arising from south of the border as negotiations are approached.

Acknowledgments

In addition to the scholars who contributed directly to this report, we wish to acknowledge the support and assistance of the Council for Regional Studies, the Hankamer School of Business, and Vice President for Academic Affairs and Provost John S. Belew, all of Baylor University. Student assistants and volunteers who also played an important role in putting the final report together include Jennifer Hill, Mike Lord, Steve Clendon, Nancy McKinney, Lera Lich and James, Stephen and Elizabeth Lich-Tyler.

Regional Considerations

Kent Keeth and Thomas L. Charlton

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Borders and borderlands of all varieties are among the facts of our daily lives, and doubtless there will always be valid reasons for their continued existence. Our present need is to recognize and distinguish among the roles such divisions may and should not be allowed to play in our pursuit of social, economic, political, and cultural well-being. This will require time, effort, understanding, vision. The essays that comprise this study reveal how complex and multifaceted are the strictures that we must face and overcome; they also suggest how rich can be the rewards of success.

North Americans seldom, if ever, think to designate themselves as such. Rather, they pay allegiance to Canada, to the United States, to Mexico, or to the nations of Central America, but claim no particular emotional or geographic bond with their neighbors beyond their own political boundaries. Indeed, they may actually feel stronger ties with one or another European country than with either of the other major nations with whom they share this continent. One explanation of that phenomenon may lie in the varying but consistently high levels of nationalist feeling endemic to all three nations.

The founders of the United States, in search of an appropriately authoritative symbol of their young country, selected the native American eagle and imbued it with attributes of national sovereignty. They dressed its breast with the stars and stripes and placed into its talons the arrows of military might and the olive branch of peace; onto a ribbon set firmly in its beak they inscribed a legend that declared the nation to be a unity composed of many and, by implication, arrayed against all others.

Coincidentally, neighboring Mexico also adopted the eagle as a symbol of nationhood. The icon on the Mexican flag derives from an Aztec legend that relates to the founding of the capital city, and thus provides a link between the ancient and modern histories of the country. But the emblem also serves as a reinforcement of *place*ness; and because the Mexican eagle grasps in its beak

the serpent of war, its symbolism, like that of the United States, combines a somewhat militant nationalism with an implicit message of sovereign inviolability.

The third major North American nation has designated no specific national bird. Perhaps Canadians have seen no need to do so, for their unofficial envoy, the Canada goose, ranges freely across much of the continent. This cosmopolitan migrant, which crosses all borders and recognizes no borderlands, may afford a more apposite model for the future of a closely knit, interdependent North America than either of the relatively more territorial and aggressive eagles favored by the nations to the south. Indeed, by attempting to visualize the perspective of the Canada goose in transit between the interior regions of Canada and of Mexico, we may rediscover a valuable lesson in North American geography.

Taking flight from its breeding ground near the Arctic Circle, the goose begins its annual migration to northern Mexico. In its passage, it observes the unfolding of the continent, from the blank white expanses of snow plains to the soft darkness of broadleaf and evergreen forests, to the mottled brown, gold, and green of croplands, to the tan and sandy deserts. Guided by land forms, vegetation types, climatic conditions, and wind currents, the goose sees the land as it truly is—a continuum whose attributes merge and blend on a palette that ultimately ranges from arctic to tropical.

The goose is as unmindful of political boundaries as it is ignorant of the divergent economic, social, ethnic, cultural, and linguistic systems that distract and perplex the humans below. It navigates North America solely on the bases of instinct, memory, and what is actually *there*—the land above which it wings. In so doing, it relies upon a holistic perception of North America that human beings will need to make a conscious effort to recapture if they are to influence the emerging new directions of the continent.

Holistic perception does not always require a bird's-eye view. On the earth's surface, bands of early nomadic Native Americans, our predecessors on this land, once also ranged freely in migratory movement across large portions of North America. One telling aspect of their conflict with the Europeans who subsequently settled this same land arose from the inability of the indigenous population to grasp and assimilate the old-world system of fences, barriers, and exclusionary limitations upon free movement.

Ultimately, those same concepts would serve to shackle and restrict the breadth of vision of the settlers and their descendants to the levels of nation, province, state, county, *distrito,* and township. Only now, as some of those human constructs come into question, do we begin to sense a need to redefine our perception of North America in order to see it as an integral geographic unit whose borders have been made—and can be unmade, if we so choose—by ourselves.

continent, but throughout the Western Hemisphere as a whole. As that concept matures to the point now nearly achieved among the members of the European Community, we may also anticipate the formation of loose, multinational regional confederations that will interact on the basis of shared interests within the hemispheric context.

Borders and borderlands of all varieties are among the facts of our daily lives, and doubtless there will always be valid reasons for their continued existence. Our present need is to recognize and distinguish among the roles such divisions may and should not be allowed to play in our pursuit of social, economic, political, and cultural well-being. This will require time, effort, understanding, vision. The essays that comprise this study reveal how complex and multifaceted are the strictures that we must face and overcome; they also suggest how rich can be the rewards of success.

I. Subregional Overviews

"Texas-Tamaulipas-Nuevo Leon-Coahuila," *Khosrow Fatemi, Dean, School of International Trade and Business Administration, Laredo State University*

"El Paso-New Mexico-Arizona-Sonora-Chihuahua," *Edward J. Williams, Department of Political Science, University of Arizona, in cooperation with the Southwest Center and the Bureau of Applied Research and Anthropology, University of Arizona*

"The Two Californias," *Paul Ganster et al., Institute for Regional Studies of the Californias, San Diego State University*

U.S.-Mexico Free Trade Agreement: An Overview

Khosrow Fatemi

Dean, School of International Trade and Business Administration, Laredo State University

I. Executive Summary

If a free trade agreement is negotiated and implemented between the United States and Mexico, it will fundamentally alter the economy of the border region between the two countries. For the most part, certainly in the long-run, the impact of free trade will be positive. On the other hand, free trade will also produce some short term economic problems for selected sectors of the border region.

II. Assumptions

The primary assumption of this section is that the proposed U.S.-Mexico Free Trade Agreement (FTA) will be a replication of the U.S.-Canada FTA. Specifically, that the FTA with Mexico (a) will include such sectors as financial services and foreign investment; (b) will include such provisions of the agreement with Canada as national treatment and rules of origin; and, (c) will be implemented over an extended period of time.

III. Advantages of Free Trade for the Region

A free trade agreement between the United States and Mexico will benefit the border region in many ways. First, it will increase the volume of trade between the two nations. Since international trade is a major contributor to the region's economy, this increase in trade will substantially add to the economic base of the region. An important side-effect of this benefit is that its impact will not be equally distributed along the border and will benefit the poorer sections the most. In effect, free trade will act as an equalizing force, albeit a small one, in income distribution in the region. This is because a negative correlation seems to exist between the significance of trade in an economy and the level of development in that economy. In other words, more trade-oriented parts of the region such as Laredo, Texas and the Lower Rio Grande Valley are more likely to

benefit from a free-trade agreement than larger cities such as San Diego and El Paso which have more diversified and less trade-oriented economies. These trade-oriented communities are also the least developed parts of the border region; indeed, the whole country.[1]

A second benefit of free trade for the border region between the United States and Mexico will be to increase foreign investment by American firms in Mexico. In the short run, this will include more *maquiladora* plants in cities and towns across the border, and will result directly and indirectly in an economic boost for both sides of the border. In the long run, the FTA will change the nature of investment by foreign firms in Mexico in at least two ways. First, many non-American firms might be inclined to build production facilities in Mexico and use these production facilities to export to the United States. In fact, there are already indications to this effect. Nissan, for example, has announced a one-billion dollar expansion of its facilities in Mexico. A second trend, one which is an acceleration of the trend of the recent past, is the relocation of *maquiladora* plants to the interior of Mexico and away from the border. Needless to say, the further these plants move from the border, the less their impact will be on the region.

Third, free trade will expand the economic base of Mexico. Most significantly, it will create more--and higher paying--jobs, in the interior of Mexico. This will eliminate the most fundamental reason for economic migration, including internal emigration from southern and central parts of Mexico into the northern region of the country. The expected drop in the flow of immigration into the region will, in turn, reduce the pressure on an already over-extended socioeconomic infrastructure of the region and will allow balanced economic development--a new economic phenomenon on either side of the border.

Finally, free trade will result in more economic growth and stability in Mexico. This will enable Mexico and the border region to avoid a repeat of the disastrous events of the early 1980s. In 1984, as a direct consequence of economic problems in Mexico, three out of the four SMSA's with the highest unemployment in the United States were in the U.S.-Mexico border region. Free trade between the two countries will make such situations less likely to occur.

IV. Disadvantages of Free Trade for the Region

A free trade agreement between the United States and Mexico will fundamentally alter the economic status of the border region. In this process, some sectors of the border economy such as retailing and financial services could be adversely affected. In retailing, for example, it is estimated that as much

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[1] The most visible case of this negative correlation is, in fact, Laredo, Texas. The port of Laredo handles some $23 billion of trade between the United States and Mexico which is approximately 45% of total trade between the two countries. Laredo SMSA also has the lowest per capita income of all SMSA's in the United States.

as two-thirds of retail sales in some border towns is generated by Mexican shoppers who cannot find similar products in Mexico or who find American prices more competitive. Free trade will drastically reduce, if not eliminate, both advantages. In short, if similar products are available in Mexico and are sold at comparable prices, then why would Mexican shoppers go to the United States to shop?

It is important to note that the proposed free trade agreement will only affect American and Mexican products and not third-country products. Therefore, the severity of the impact of free trade will depend on the composition of retail sales in each border town. If, for example, 60% of all products sold in the region is U.S.-made and 40% is foreign made, and assuming that 50% of retail sales in a particular section of the region is to Mexican shoppers, then retail establishments in that particular section of the border region could conceivably lose as much as 30% (50% of 60%) of their total sales.

It could be argued that many Mexican shoppers do not cross the border just to shop, and combine shopping with other activities such as visiting friends or relatives. If true, this will diminish the negative impact of the Free-Trade Agreement. On the other hand, it could also be argued that the person who visits the American side just to shop, say $100, considers that the savings associated with this activity outweigh the inconveniences of doing so--such as crossing the border, waiting in line, being inspected, etc. If he can find 60% of what he needs in Mexico, then the economic appeal of shopping in the United States for the other $40 may not necessarily outweigh the disadvantages of doing so, in which case the negative impact of free trade will be more than proportional to the percentage of U.S.-made products sold to Mexican shoppers.

Financial services is another sector of the border economy which will, in all likelihood, be adversely affected by free trade. Financial institutions in the region rely to a great extent on Mexican depositors who, despite substantially lower interest rates, prefer to keep their money in U.S. banks, for reasons of confidentiality, stability, and security. Border banks receive a disproportionately large share of these deposits. If American financial institutions are given "national treatment" in Mexico, that is if major American banks are allowed to engage in retail banking in Mexico, then Mexican depositors will be able to get most of the benefits of depositing their money in American banks without having to travel hundreds of miles to do so in the United States. It is reasonable to conclude, therefore, that gradually and as more confidence is gained by the branches of American banks in Mexico, the border banks will lose their main advantage in attracting Mexican deposits. Minimally, to remain competitive, they must establish retail banking facilities in Mexico. Many of the banks in the border region do not have the size, expertise, nor the required capital to do so and will likely lose a large share of their Mexican deposits.

V. Assessments/Prospects for Free Trade

The prospects of a free trade agreement with Mexico resulting in long-term economic development for the two countries in general, and the border region in particular, are good. As indicated elsewhere in this section, these prospects are long-term and unevenly divided, both sectorially and geographically. It is these two points which should be examined thoroughly prior to the final acceptance and implementation of a free trade agreement between the two countries. Without such an examination, the border region, and by extension the two countries in general, could face many new economic problems ranging from inadequate infrastructure to regionalized inflation and from higher unemployment to immigration.

VI. Critical Factors Upon Which the Assessments Are Based and/or Upon Which the Prospects Are Dependent for Realizing Free Trade

The prospects of a successful free trade agreement are dependent upon a comprehensive examination of all issues involved in the process. The political temptation to reach a quick agreement will result in less than a satisfactory situation for both countries. The scope of this section is limited to the border region; however, the border is not the only issue which should be examined prior to completing an agreement. The proposed free trade agreement between the United States and Mexico is unlike any other FTA in history. Because of the diverse nature of the economies of the two countries, the agreement could--and in all likelihood will--result in a situation where some structural adjustments will be required in both countries, particularly in certain sectors of the economy and certain regions of the country.

VII. Priority Issues

The most important single issue to be considered here is the fact that the border region between the United States and Mexico is a unique case and must be studied separately from the rest of the country. This region--among the least industrialized and least diversified parts of the country--will be affected more seriously and more fundamentally by the proposed Free-Trade Agreement than any other region, sector, or industry in this country. Many parts of the border depend on trade with Mexico for their survival, and a change in the status quo--even one which in the long-run will be a major improvement--will require certain structural adjustments in this region. For example, hundreds of people work in sectors such as brokerage houses whose sole function is to facilitate trade by helping exporters and importers overcome trade barriers. If these barriers are eliminated, then is it not logical to conclude that these positions will also be eliminated?

Supporters of a quick free trade agreement with Mexico often use the case of the Free-Trade Agreement with Canada to support their argument. Unfortunately, this argument is at best seriously flawed. The American side of the border with Canada includes some of the most industrialized and most diversified regions of this country. On the other hand, as indicated earlier, the American side of the border with Mexico includes some of the least industrialized and least diversified regions of the United States. This lack of diversification makes the region susceptible to economic adversity, be it a severe winter for the agricultural areas or a drop in Mexico-generated business in trade-oriented parts of the region. Rather, the point of contention here is twofold. First, is the fact that the border region will be affected by free trade more seriously than any other part of the country. This will, in turn, require some structural adjustments. Secondly, the existing vulnerability of the region might make it difficult, if not impossible, for the region to accommodate such adjustments. If the arguments stated here are valid, then the impact of the proposed free trade agreement with Mexico on the border region must be studied fully and independently of other regions of the country before the agreement is actually negotiated. This is the only way that serious economic problems--and the resulting social and political repercussions--can be avoided.

The United States-Mexican Free Trade Agreement:

Blessings and Curses for the Borderlands

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I. Introduction

The United States-Mexican Free Trade Agreement (FTA) implies impacts of differing import and varying characteristics. The national perspective for both countries offers a positive economic vista featuring growing trade and more competitive products evolving from the comparative advantage of multiplying economies of scale and increased specialization. Descending to the subnational or regional level, the panorama tends to more complexity. Some regions of the U.S. and Mexico will reap more benefits than others. Even in favored areas, the impacts will be uneven and imply some negative characteristics. Economic growth is always a double-edged sword.

Proceeding from that axiom, this paper projects the FTA's potential blessings and curses for the Southwest Borderlands. The description and analysis pay special attention to the geographic expanse of the Borderlands stretching from El Paso through Arizona's border with California. The paper divides into three parts: 1) a brief argument for the positive significance of the FTA for the United States and Mexico; 2) the postulation of projected blessings for the Southwest Borderlands; and 3) a discussion of the treaty's putative negative impacts upon the region.

Although it is abundantly clear that the FTA promises measurable economic growth in the Borderlands, this analysis for good reason dwells somewhat on the curses of the treaty. Policy makers need to be sensitive to the negative potential the better to implement policies and programs designed to respond to evolving conundrums. Indeed, Washington has never evidenced much sensitivity to the problems of the Borderlands. The FTA provides the context to catalyze more attention and better understanding from Washington. It is about time.

II. The Argument for the FTA

First off, it is critical to emphasize the profoundly important advantages of the United States joining Mexico in the FTA and working toward the formation of a North American Common Market encompassing nearly 400 million souls from the Yukon to the Yucatán. Size is the economic imperative of the present historical juncture. Europe will be one in 1992. North America cannot be far behind, lest it lose even more of its competitive edge.

Both the United States and Mexico will grow richer when the FTA takes hold. Wealth provides the capital for addressing a litany of problems in the United States and Mexico. The need for economic growth in the U.S. is well established and needs no discussion here. For Mexico, the need is even more critical, for the economic crisis of the 1980s spelled negative growth in GNP per capita. Mexicans are poorer in 1990 than they were in 1982. That means less money for highways, schools, and hospitals. At the most basic level of human needs, many Mexicans suffer from hunger and malnutrition.

Economic prosperity also relates to political change. The economic gains of the FTA imply positive support for the encouraging political development afoot in Mexico. Mexico has been inching toward more authentic political participation for at least the last 15 years. While progress remains imperfect, Mexico's President Carlos Salinas de Gortari continues to push for more legitimate representation and increasingly honest elections. Economic development nurtures democratic government; it provides resources for educating the citizenry and offers a foundation of economic security that facilitates independent political participation.

It should also be noted that Mexico's economic and political well-being serves the basic security interest of the United States. The U.S. enjoys more security with an economically viable and politically stable neighbor who shares a 2000-mile border. Hence, both Mexico and the United States stand to benefit in several ways from the FTA.

III. Economic Blessings for the Southwest Borderlands

The Southwest Borderlands also anticipate taking advantage of the blessings of the treaty. A general principle of free trade arrangements is that they confer comparatively more economic benefit on the poorer participants, be they countries or regions of countries. Both the rich and the poor gain, but the poor achieve relatively higher rates of expansion. If the principle holds, some relief may be implied for the dirt-poor Borderlands. Most Americans living in the Borderlands suffer significantly more poverty than their countrymen. Texas border dwellers rank amongst the most poverty-stricken in the country. Of the 313 metropolitan areas in the U.S., Texas border communities occupy four of the

last five places in per capita income. The McAllen-Edinburg metro area is the poorest in the country, followed by Laredo and Brownsville-Harlingen. El Paso ranks fifth in per capita poverty and is the poorest large city in the U.S.[1]

Beyond the general principle, several more specific circumstances and conditions suggest that the Borderlands should benefit economically from the FTA. Businessmen in areas like transportation, communications and services are geographically well placed to reap the economic advantages of burgeoning trade between the U.S. and Mexico. Cities like El Paso and Laredo, Texas and Nogales, Arizona are already flourishing centers of international trade and their experience and circumstances should nurture even more commercial interchange with the coming of the FTA.

By experience, culture and linguistic abilities, Borderlanders also have an edge on other regions of the country. Many are old Mexico hands, having done business in the country for decades. They possess cultural sensitivity, a meaningful attribute when interacting with their Mexican counterparts. Many also handle the Spanish language.

Relatively speaking American high tech industries stand to gain comparatively more from the treaty than most other sectors of the U.S. economy. The Southwest Borderlands house more high tech industries than other regions, adding to their comparative advantage as the distribution of economic gains from the FTA crystallize. Moreover, Mexico's prosperity should ramify more onto the Borderlands than to other areas, defining another increment of economic advantage for the region. As the trade agreement spurs Mexican growth, the economic spillover in the Borderlands will increase significantly. Cities like El Paso, and Douglas and Nogales, Arizona now depend heavily upon transborder shoppers for their economic sustenance and the border states host large numbers of free-spending Mexican tourists. The FTA portends more numerous and richer shoppers and tourists, and, in the process, an additional contribution to the Borderlands economy. To the point, the economic gains for the Borderlands will be higher than for other regions of the United States.

Finally, increased investment will flock to the Borderlands on both sides of the international line. As Mexican industry moves north and U.S. industry moves south to locate nearer to potential new markets, the Borderlands should prosper in the short term from an upturn in construction and in the longer term from additional industries and businesses. In sum, a Free Trade Agreement implies significant economic benefit to the Southwest Borderlands. Transportation and communications between the two nations will boom; services connected with the trade industry will grow. The Borderlands' high-tech industries are winners in the larger balance of gains and losses. Mexico's prosperity will spill over into the U.S. border region and new investors will invigorate the border economy.

IV. Social and Environmental Curses for the Southwest Borderlands

While Borderlanders celebrate the coming of the FTA's economic blessings, they also recognize that rapid economic growth conjures a fair number of curses as it spurs burgeoning populations, environmental degradation, and social problems like increased crime. The nexus is starkly familiar to the Southwest Borderlands for they have been enjoying and suffering the consequences of a boom for the last several decades.

Population data define the booming border region. From 1950 through 1980, the border states on the U.S. side (California, Arizona, New Mexico, and Texas) more than doubled their collective population to 42 million. Early 1990 census data showed the four border states as growing more swiftly than almost all others. Of the 52 units listed by the Census Bureau, the four border entities ranked within the top 12 in rate of growth: Arizona, 3; California, 5; Texas, 7; New Mexico, 12. The census calculated the four border states as having more than 51 million of the nation's 246 million inhabitants. Two of the border states, California and Texas, ranked as the first and third most populous in the union.[2]

Population is increasing even more rapidly in the Mexican Borderlands, especially in the burgeoning border cities. From 1950 through 1984, the population of Mexico's "Northern Region" shot from about 5 million to more than 15 million.[3] With Mexico's 1990 census, the North will count more than 20 million, a fourth of Mexico's population. Growth in the border cities is nothing short of spectacular. At the beginning of the 1990s, about 7 million crowded into Mexico's border cities. Ciudad Juárez, across from El Paso, exceeds a million inhabitants. On the Arizona-Sonora border, both Nogales and San Luis hover at 250,000. Across the line from Douglas, even a relative backwater like Agua Prieta approaches 100,000. In every case save Tijuana-San Diego, the Mexican borderlands' urban center far outstrips its U.S. sister city.[4]

The burgeoning growth of the border cities leads inexorably to serious deficiencies in urban infrastructure and services. Although certainly not limited to the southern side of the line, the problems are unusually acute in Mexico. Insufficient housing ranks as the Mexican border cities' number one problem. Inadequate transportation is the second most frequently issued complaint of Mexico's border city dwellers. But housing and transportation tell only part of a depressing tale of border city malady. Potable water is in short supply everywhere, streets are in poor condition and usually not lighted, sewage systems are inadequate, drainage systems are not well designed or are absent, and border crime increases as a result of the normal process of urbanization compounded by the impact of drug trafficking.[5]

But problems are not limited to the Mexican side. A report from the City Manager's office in Nogales, Arizona exemplifies the point. In the first instance, the report complains that the Arizona State Economic Estimates Commission set

in 1990 a population of 17,439 for Nogales, more than 25 percent below the 22,000 calculated by Nogales' officials. That is only half the problem. The Arizona state officials fail to understand that Nogales counts a "service population" of an additional 20,000 to 30,000. Nogales, Arizona, of course, forms part of the urban center of "Ambos Nogales" (Both Nogales). Nogales, Sonora suffers a population of about 250,000. The report gets to the essence of the conundrum of many border cities on the U.S. side:

> Consequently, we are forced to try to provide infrastructure an community services for a City of at least 20,000 residents with a service population of at least twice that number on a budget determined by the State for 17,000.[6]

With burgeoning population, environmental degradation proceeds as night follows day. The Borderlands suffer from deterioration in their air and water quality. The control and disposal of sewage and hazardous and toxic wastes plagues the border area and jeopardizes safe surface and subsurface water. In Mexico, relative poverty compounds the predicament of population growth.

Raw sewage flowing across the border from Mexico defines an outrage that symbolizes the horror of the Borderlands' dilemma. The problem of Tijuana sewage may be the foulest and best publicized of all, but other cities also endure the problem, including Nogales. Sewage flows from the Mexican side and befouls Nogales, Arizona, particularly during the rainy season. As early as the 1950s, the International Boundary and Water Commission (IBWC) fashioned a precedent-making cooperative agreement to construct a treatment plant. The facility has been expanded and upgraded and represents a giant step forward, but it remains an imperfect solution. Many of the mushrooming barrios on the Mexican side are not connected to the Nogales, Sonora sewer system. Raw sewage continues to flow into the United States.

Lest this discussion imply a false image, it should be noted that the United States also contributes to surface water pollution in the borderlands. The defiling of the Colorado River in the U.S. provides the best known example. Colorado River pollution streams into Mexico south of Yuma, Arizona. Along its entire length, the Colorado River is heavily utilized for irrigation. As the waters are diverted and returned to the river, they accumulate higher concentrations of salt. By the time the River reaches the Arizona-Sonora Borderlands, its saline content reaches levels high enough to destroy crops cultivated on the Mexican side. The problem festered for many years before bilateral diplomacy outlined a solution in 1973. The U.S. has been extraordinarily slow in its implementation. In the early 1990s, the world's largest desalinization plant inches toward completion near Yuma. When it comes on-line in 1992, it should resolve the problem.[7]

Threats to groundwater also exist in the U.S.-Mexican borderlands, and they wax increasingly worrisome in the 1990s as the implications of FTA-generated growth loom on the horizon. The Southwest Borderlands rely heavily on groundwater resources. California, Texas and Arizona rank first, second, and

sixth in national groundwater withdrawals; groundwater counts for more than 60 percent of water use in Texas and Arizona and for 50 percent in New Mexico.[8]

The leading study identified a number of ecological problems besieging the border region's groundwater. Several operate in tandem with the pollution of the surface water sources discussed above. Surface and groundwaters are associated. Hence, the Colorado River salinity threatens ground water purity in the twin cities of Yuma/San Luis, and sewage pollution endangers the groundwater of Ambos Nogales. Other sewage disposal deficiencies and copper mining waste materials have jeopardized underground aquifers in southern Arizona between Douglas/Agua Prieta and Ambos Nogales.

But El Paso/Ciudad Juárez forms the borderland's cause celebre. The two million-plus border metropolis depends almost totally upon groundwater--El Paso, 94 percent; Juárez, 100 percent. While the city of El Paso continues to fight a seemingly losing battle with the state of New Mexico for pumping rights in one of the area's aquifers, saline contamination jeopardizes the region's underground water supply.[9]

While sewage and salinity continue to imperil the border region's waters, hazardous and toxic waste associated with the booming maquiladora industry has emerged as a focal point for ecological anxiety in the early 1990s. The critics charge the industry with a multitude of sins. The evidence is inconclusive, but enough exists to elicit activities from friends and foes of the maquiladora industry. The AFL-CIO has charged the assembly plants with blighting the border landscape with toxic wastes. At the other end of the friend-foe spectrum, the Border Trade Alliance (BTA) launched in 1988 a campaign to sensitize its members to the issue. In the same vein, Representative Jim Kolbe (R, AZ), a champion of the industry, has pinpointed the problem as an area where U.S. corporations must accept responsibility for cleaning up toxic wastes generated by the maquiladoras.[10]

Air pollution in the Borderlands reflects essentially the same causes and relationships as the degradation of the area's water. Rapid population growth on both sides combines with relative poverty on the Mexican side to create new conditions and novel problems. The Mexican border cities contribute more to the region's air pollution, but the U.S. has also added to the problem in several locations.

The relatively poor and relatively ignorant seven million persons inhabiting Mexico's border cities create enormous potential for fouling the region's air. Mexico has no regulations requiring antipollution devices in border city autos. Automobiles are older and are frequently in bad repair. Idling vehicles from Mexico and the U.S. line up at border crossings for millions of cumulative hours contaminating the air. Controls on industrial emission are not so strict in Mexico as in the U.S., and enforcement tends to be even more lax. In every overcrowded border city on the international boundary, hundreds of thousands of Mexicans living in makeshift barrios heat their crude shacks with homemade

stove and open fires that burn a bewildering melange of fuel, including auto tires. Dust forms a substantial problem in many border cities. The burgeoning and indigent Mexican side has been unable to pave or landscape the constantly expanding space commandeered by new arrivals.

Degradation of air quality haunts every American border city. Nogales, for example, suffers the worst air quality in Arizona as pollution wafts over the line from Sonora. Douglas endures a serious dust problem, particularly as the shifts change in the maquiladoras across the line in Agua Prieta. El Paso officials fear a major catastrophe as the city's air disintegrates almost daily.[11]

But the argument needs to be extrapolated one step further. Rapid population growth has contributed to inadequate social and urban infrastructure and combined in a vicious cause and effect feedback loop with environmental degradation to create a context brimming with ominous threats to public health. In mid-1990 the American Medical Association (AMA) endorsed a report by its Council on Scientific Affairs that posited "the major factors affecting environmental health in the border area are water and air pollution." In another frightening declaration the committee's report charged that "the border area is a virtual cesspool and breeding ground for infectious disease."[12] By way of confirming the charges of the AMA, in early Fall in 1990 overflowing sewage from the Mexican side inundated Ambos Nogales contributing to a rash of hepatitis cases both sides of line.

In sum, the promise of additional economic growth in the wake of the FTA forms a mixed blessing for the Southwest Borderlands. Poor Americans and Mexicans on the border welcome economic prosperity, but they wax apprehensive about the concomitant threats to their environment and to their social and physical well-being.

V. Conclusions/Prescriptions

The U.S.-Mexican Free Trade Agreement assures reciprocal advantages to the two countries and needs our support as part of a process culminating in a North American Common Market. The Southwest Borderlands will reap economic benefits from the treaty, but they may also suffer additional social problems and further environmental degradation as they shoulder more than their fair share of the negative impacts of unplanned growth. The region has already endured the injurious consequences of movement to the U.S. Southwest, massive migration to Mexico's Northwest, rapidly growing U.S.-Mexican trade, and the undisciplined growth of the maquiladora industry. The FTA may finally draw attention to those festering problems and catalyze public policy.

A bilateral strategy is mandatory. In the context of ratifying the FTA, United States policy should encourage bilateral cooperation to tackle the problems of the Borderlands. Space prohibits a detailed discussion of the

nuances and extrapolations of the policy package, but several components are obvious: 1) the U.S. and Mexico should form a bilateral border environmental health commission pattered after the lapsed US-Mexico Environmental Health Project; 2) the two governments must encourage intimate cooperation between their respective environmental agencies, the Environmental Protection Agency (EPA) and the Secretaría de Desarrollo Urbano y Ecología; 3) the legal competence of the International Boundary and Water Commission (IBWC) should be expanded; 4) the Border Governors Conference should be encouraged in its increasing vigor; and 5) following the 1990 recommendations of the Commission for the Study of International Migration and Cooperative Economic Development, the U.S. and Mexico should forthwith establish a Border Development and Cooperation Commission (BDCC). In the words of the Commission, "the mandate (of the BDCC) should be broad, and defined to permit flexibility to address emergency and emerging issues...." Its charge would include things like "building bridges, facilitating customs procedures, simplifying and unifying trucking regulations, and protecting ground water resources."[13]

As the FTA signals a new departure in United States-Mexican relations, it is time to strengthen the relationship by pursuing those complementary initiatives. In the process, both nations will prosper and the relative poverty of the Southwest Borderlands may be alleviated without ravaging its ecology.

ENDNOTES

1. "Richest and Poorest Metro Areas," *Arizona Progress* 2nd Quarter, 1989, Vol. 44, Issue 2.

2. "Census Data Show Sharp Rural Losses," *New York Times,* August 30, 1990, p. 1.

3. The "Northern Region" includes the five border states and Baja California Sur, Durango, and Sinaloa.

4. The population figures are the author's estimates and Frank Branderburg, *The Making of Modern Mexico* (Englewood Cliffs, NJ: Prentice-Hall, 1964), pp. 238-239; *The Europa Yearbook, 1988. A World Survey,* Vol. II (London: Europa Publications Limited, 1988), pp. 1836-1837.

5. For survey data and concomitant discussion, see Edward J. Williams and John T. Passé-Smith, *Turnover and Recruitment in the Maquila Industry: Causes and Solutions* (Las Cruces: Joint Border Research Institute, New Mexico State University), 1990, pp. 11-14.

6. Earl W. Sires, "The Impact of Population Growth on Community Services: Nogales, Arizona." Paper presented at the Binational Conference on Health, Industry, and the Environment." Nogales, Arizona, May 1990. The quotation is from p. 4.

7. From diplomatic, political, and even engineering perspectives, the affair has been ineptly handled from the outset. See Office of the Inspector General, U.S. Department of the Interior, "Survey Report on the Review of the Colorado River Basin Salinity Control Program," Report Number 89-109, (Washington, Department of the Interior, 1989).

8. The best work is Stephen P. Mumme, *Apportioning Groundwater Beneath the U.S.-Mexican Border* (San Diego: Center for U.S.-Mexican Studies, University of California, 1988). This discussion leans heavily upon the study.

9. *Ibid.*, pp. 19-20.

10. Kolbe, "The Border Mentality and What to do About It," *Twin Plant News* July, 1988, p. 72. For the position of the AFL-CIO and the BTA, see Leslie Kochan, "The Maquiladoras and Toxics: The Hidden Costs of Production South of the Border," (Washington, AFL-CIO, 1989); and "Report of the Environmental Subcommittee of the Border Trade Alliance."

11. For discussion, see Branigin, "Pollution Under Scrutiny at U.S.-Mexican Border," *Washington Post* October 24, 1989, ISLA 1337; and Kammer and Tolan, "Arizona Decries Border-Crossing Mexican Pollution," *Journal of Commerce* May 15, 1989, ISLA 2525.

12. Committee on Scientific Affairs, "A Permanent U.S.-Mexican Border Environmental Health Commission," *JAMA* June 27, 1990, pp. 3319, 3320.

13. The Commission's report is *Unauthorized Migration: An Economic Development Response* (Washington: Commission for the Study of International Migration and Cooperative Economic Development, 1990). See pp. 104-105 for the discussion of the BDCC.

Southern California and the Free Trade Agreement

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I. Executive Summary

In recent years, the border region of California has become more aware of the importance of the Mexico connection, principally because of the significant growth of the maquiladora industry and the positive spillover effects on the regional economy. At the same time, increasing negative impacts, largely associated with undocumented immigration, have become important local concerns.

Initially, when President Salinas announced his intention to seek a Free Trade Agreement (FTA) with the United States, the private sector and public sectors, along with many scholars, received the news with enthusiasm. While little systematic analysis has been undertaken regarding the costs and benefits of the FTA for Southern California, increasingly issues are being raised regarding the regional costs of such an arrangement.

A further concern of many individuals and leaders in Southern California is the difficult problem of current negative impacts from Mexico, including transborder environmental impacts, significant crime and criminal justice system costs related to Mexican nationals, and the large costs for social services and indigent health care for undocumented immigrants. As well, concern is expressed that a FTA will further weaken regional agricultural and manufacturing industries.

II. Assumptions

The Free Trade Agreement (FTA) will increase trade and economic integration between Mexico and the United States. The FTA does not contemplate the legitimate free flow of people between the two countries, except for white collar workers. While in the long run it is expected that the FTA will create employment in Mexico and slow the flow of northward migration, in the short run

high levels of migration to the United States will continue. Furthermore, continuation of current Mexican domestic wage and price policies, coupled with the failure of non-competitive Mexican firms, might well enhance the flow of undocumented middle class migrants to the United States. The FTA is at least as significant to the United States as the formation of a European trading block, and the Mexico connection will constitute the lens through which the United States views its relationship with the rest of Latin America, the natural trading area for the United States.

III. Advantages of a Free Trade Agreement

Generally, advantages of a FTA for the California border area are seen in new commercial, service, and trade opportunities with Mexico. Specific areas mentioned include:

• Enhanced opportunities for retail trade, particularly that aimed at more affluent Mexican consumers.

• New opportunities for small and medium-size businesses to engage in operations in Tijuana and other Baja California cities. For example, small manufacturing firms could establish operations in Mexican cities to supply components to the maquiladora industry.

• Significant growth of manufacturing in Mexico, much of which will be located in Mexican border cities, will have an important impact on the Southern California economy through well-known spillover effects. As well, development of land in areas such as Otay Mesa in San Diego adjacent to the border will receive added stimulus.

• Maquiladora-type operations will increase in Baja California. Textile, steel, and other industries will move in greater numbers from Southern California and elsewhere in the nation to Mexico. San Diego and Southern California companies associated with Mexican manufacturing will encounter important new opportunities. These include shelter operators, support services such as attorneys, accountants, transportation service firms, customs brokers, and others.

• The FTA will provide a window of opportunity for better binational cooperation on regional problems such as sewage, transportation development (including a binational airport for San Diego and Tijuana), environmental protection, public health, criminal justice administration, and so forth.

• The FTA will provide new opportunities for California farmers and growers to establish direct operations in Baja California and elsewhere.

• The FTA, through the elimination of non-tariff barriers and other bottlenecks, will provide new opportunities for regional banks, energy companies

(including natural gas distribution firms), and service providers to establish operations in Baja California and Mexico.

• The FTA will probably provide new opportunities for exports of wine to Mexico. However, many non-tariff barriers may prevent direct investment in wine productions in Mexico.

• The FTA will provide new opportunities for trucking and transportation firms to extend operations into Mexico.

IV. Disadvantages of a Free Trade Agreement

*There is concern among small retailers and merchants along the U.S. side of the border who depend to a large extent on Mexican consumers that the FTA will increase the competitiveness of Mexican merchants, thus negatively impacting their industry.

*The FTA will increase manufacturing in Mexican border cities, greatly increasing uncontrolled pollution of the environment, with deleterious spillover effects on communities in Southern California. For example, in 1988 the South Coast Air Quality Management District (AQMD) announced strict rules requiring the installation of spray chambers to prevent escape of hydrocarbon fumes from paint solvents. Since that time, some 40 firms have relocated to the Mexican border, many to Tijuana and Mexicali, to escape U.S. environmental regulations. However, the pollution from the relocated firms continues to impact air quality in U.S. border cities, including San Diego.

*The FTA will increase manufacturing in Mexican border cities, enhancing their role as a magnet for economic refugees from central and southern Mexico. Many of these people will end up as undocumented persons in Southern California communities, increasing significantly costs to local governments that are not reimbursed by state and federal agencies.

*Initially, the FTA might cause unemployment in noncompetitive industries in Mexico, promoting increased undocumented immigration to the United States.

*The FTA will have a significant negative impact on Southern California agricultural industries, including avocado production, fresh vegetables, cut flowers, and horticulture. Those sectors of U.S. agriculture that will benefit from FTA (deciduous fruit producers, grain producers) are not located in Southern California. Small, family operations are the most at risk under the FTA; large agribusinesses have the diversity and resources to avoid negative consequences of free trade.

*Increased imports of Mexican fresh fruits and vegetables will have negative health effects on U.S. consumers due to the lack of enforcement of pesticide standards in Mexico. Excessive pesticide residues (and residues of

prohibited pesticides) are only detected through sporadic testing in the United States, usually after consumers have ingested the contaminated products.

*It is clear that there will be some loss of jobs in different economic activities in Southern California as a result of FTA. Many of these jobs will be in manufacturing--jobs that are increasingly scarce in the U.S. economy.

*Textile manufacturing in San Diego and in Los Angeles will no doubt be severely impacted by the FTA.

*FTA will produce significant impacts on the regional trade infrastructure, including border crossing facilities. Thus, without substantial U.S. government funding, daily life for many border residents will be made more difficult through increased border crossing delays.

*Distribution of income in Mexico is so inequitable that the number of consumers able to purchase U.S. products is much smaller than generally supposed. Thus, the potential for exports and sales to Mexico must be examined more critically.

RECOMMENDATIONS

1. As part of the FTA, Congress should take the initiative in the formation of a binational border environmental agency to insure uniformity of environmental regulations, compliance, and enforcement in a zone 100 kilometers north and south of the international boundary. This would assure that negative environmental spillover effects on the United States caused by FTA are minimized. This would assure remediation of current severe border environmental problems, including transborder sewage spills and hazardous waste problems.

2. Immigration reform is needed in both Mexico and the United States to accompany FTA to facilitate the flow of white collar and professional workers.

3. Congress needs to help California border communities with increased costs (social services, indigent health care, education, law enforcement, and so forth) resulting from the FTA.

4. Congress should establish a program to evaluate job loss as a result of FTA and establish a safety net in the form of retraining programs for those workers affected.

5. Congress should take a careful look at Mexican development and social policies that, over the past 50 years, have produced one of the most inequitable societies in the world in terms of income distribution. These policies have produced the concentration of enormous wealth in the hands of few and poverty and inadequate social investment for the masses. Thus, on the one hand,

wealthy Mexicans have been able to take abroad some eighty billion dollars over the past decade as capital flight. On the other hand, waves of economic refugees have fled north from Mexico, first from the near north, then from the rural south, and now increasingly from urban Mexico. In the past, the United States has clearly benefited from this flow of refugees, through the incorporation of energetic and motivated workers in entry-level positions in the economy and through the rich culture and traditions these people have brought with them. Now, however, serious questions are being raised about the necessity of a continued labor flow from Mexico, other than for seasonal agricultural labor. It makes little sense to negotiate trade concessions with Mexico, if Mexico still avoids the taking of difficult decisions needed to distribute income more equitably.

6. Mexico's continued high population growth rate has the potential to wipe out any gains in reducing push factors for migration through economic expansion. Thus, Congress should be concerned about Mexico's population policy as an important element in the FTA negotiations.

7. Congress should have as a prime concern the role of intellectual property rights in the FTA with Mexico.

II. Major Sectors and Topics for Negotiation

"Agriculture," *Gary W. Williams and C. Parr Rosson, Department of Agricultural Economics, Texas A&M University*

"Energy," *Charles Capone, Department of Economics, Baylor University*

"Retail Trade," *Richard Vasey, Dillard's Southwest Division, El Paso*

"Manufacturing," *Stephen R. Jenner, Associate Director, Institute for Regional Studies of the Californias, San Diego State University*

"Financial Services," *Jesus L. Gutierrez, Union National Bank of Texas, Laredo, Texas*

"Investments," *Stephen Guisinger, Director, International Management Studies, University of Texas at Dallas*

"Intellectual Property," *Lawrence J. Johnson, R. Blair Kureger,Jr. and Joe W. Pitts III, Baker and McKenzie, Dallas and Los Angeles*

Agriculture

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I. Executive Summary

Free U.S.-Mexico agricultural trade will lead to both greater U.S. export opportunities and increased competitive import threat. To achieve free trade will require successful negotiation of reductions in extensive government support to agriculture in both countries and the harmonization of animal/plant grades, standards, and health requirements.

II. Assumptions

- Free trade will lead to the following in Mexico: (1) a lower risk and higher level of foreign capital investment, (2) an increase in GNP growth, and 3) per capita income growth.
- Mexico has already reduced tariffs on many food products. Mexican duties on fresh fruits and vegetables are near 20% and 10% on grains and livestock. The U.S. has a variety of ad valorem duties on fresh fruits and vegetables, ranging from 8.5% to 35%.
- Pervasive non-tariff measures applied to agricultural trade between the two countries may be more restrictive than tariffs.
- Labor issues may be excluded from the negotiations but will remain important.

III. Advantages of Free Agricultural Trade with Mexico

- Mexico represents a large potential market for many U.S. agricultural products and commodities. Already the third largest U.S. export market, Mexico is the leading market for dairy products (valued at $US 228 million in 1989), live cattle ($US 112 million), animal fats ($US 106 million), and seeds ($117 million). Mexico is also a rapidly growing market for meats ($250 million) and grain

sorghum ($262 million) from the U.S. Reduced trade barriers will expand current export trends and boost U.S. farm prices and income.

- Mexico is an important potential source of low cost foods. Mexico is presently the second largest supplier of food to the U.S. Vegetable imports from Mexico in 1989 reached $704 million, accounting for 36 percent of the vegetable imports in that year and about ten percent of total U.S. fresh vegetable consumption. Fruit and coffee imports from Mexico were valued at $226 million and $464 million, respectively. As the largest supplie. of feeder/stocker cattle to the U.S., Mexico represents a low cost source of inputs for a key U.S. industry. Other major imports from Mexico include malt beverages ($151 million) and sugar ($53 million). Reduced trade barriers will expand current U.S. import trends and reduce consumer food prices.
- An increase in per capita income would generate a shift in Mexican demand towards more processed, higher value food products. The consequence would be a similar shift in the composition of U.S. agricultural exports to Mexico and growth in food processing and employment in the U.S.

IV. Disadvantages of Free Agricultural Trade with Mexico

- Mexican imports represent a competitive threat to several U.S. agricultural industries. Products protected by trade barriers and high domestic support levels will experience lower prices, reduced production, and lower producer incomes.
- Free trade may provide the basis for long-term development of a more competitive Mexican agricultural sector and a consequent decline in some U.S. agricultural exports. Increased capital availability will support long-term growth in Mexican production of export-oriented commodities and the development of infrastructure such as packing facilities, storage, and transportation.
- Increased exports to Mexico will raise consumer prices for many U.S. grain and livestock products.
- Free trade will create regional disparities in U.S. farm income. Midwest producers of grains and livestock will benefit at the expense of southern and southwest producers of fruits and vegetables.
- Irrigation of additional Mexican crop production will put more pressure on the Rio Grande river, the only supply of water in the Texas-Mexico border region which will adversely affect water quality, the yield potential of all irrigated crops, and the cost of water.
- Increased Mexican production of labor-intensive commodities would increase the demand for labor in Mexico, help push up Mexican

agricultural wages, reduce the flow of unskilled Mexican labor to the U.S., and raise the U.S. labor cost of production.

- Mexico has less stringent agricultural chemical use regulations than the U.S. An increase in agricultural imports from Mexico could increase the incidence of chemical residues in the U.S. food supply.

V. Prospects for Free Trade in Agriculture with Mexico

- Two recent world events suggest that free trade in agriculture between the U.S. and Mexico will be quite difficult to achieve and that whatever agreement may be reached could result in little gain in agricultural trade between the two countries. First, agriculture has become the stumbling block to progress in the current round of Multilateral Trade Negotiations both because support for agricultural producers is a emotional issue and because government intervention in all aspects of agriculture is so pervasive world-wide. The extent and complexity of government involvement in agriculture make the reduction of agricultural trade barriers a difficult process. Non-tariff trade issues such as harmonization of grades and standards, phytosanitary concerns, and chemical residues are particularly difficult to negotiate. The extensive set of domestic agricultural policies as well as tariff and non-tariff barriers affecting agricultural trade in the U.S. and Mexico suggests that agriculture will likely become a key issue in U.S.-Mexico talks.
- Second, agricultural issues did not prevent the successful negotiation of a U.S.-Canada free trade agreement because agricultural trade and trade restrictions between the two countries were low prior to the agreement. The small change in tariff rates required and the contingent nature of some of the agricultural provisions has resulted in little additional agricultural trade between the two countries since the agreement was implemented. Although still high for a number of commodities, Mexican tariff rates on many agricultural commodities have already been reduced considerably.

VI. Critical Factors Affecting the Prospects for Free Trade in Agriculture

- The most critical determining factor in the successful negotiation of U.S.-Mexico free trade in agriculture is the willingness of both countries to discuss significant reductions in internal agricultural price support programs, the main stumbling block in the current GATT negotiations.
- Even if tariff barriers are significantly reduced or eliminated, agricultural trade between the two countries may still not expand significantly unless the extensive non-tariff barriers affecting that trade are also eliminated.

- Border impact issues will also be crucial in the negotiations. With more import competition and the lure of cheaper labor across the border, the infrastructure critical to several U.S. agricultural industries could relocate to Mexico. Mexican labor formerly used in the U.S. could remain in Mexico and create an economic drain on many border communities currently experiencing the positive impacts of large Maquiladora operations.
- Prospects for free agricultural trade are also dependent on the development of some transition and compensation mechanism. Under the U.S.-Canada Agreement, fruits and vegetables are allowed a 20-year transition period, compared to 10 years for other products. Similar provisions for a U.S.-Mexico agreement will also be necessary. Provisions for higher tariffs during peak shipping seasons to ease the adjustment to import competition may be necessary to minimize perceived losses to U.S. agriculture. Such measures (referred to as "snapback" provisions) are allowed under the Canadian agreement for up to 20 years and have recently been implemented for asparagus.

VII. Priority Issues to Clarify and Monitor During the Negotiations

- The transition process needed to ease the shift to more open markets and minimize the potential displacement of agricultural production, labor, and facilities.
- The impact on border communities.
- How to handle much less stringent Mexican commodity grades and standards, chemical use regulations, food residue regulations, insect and disease control standards, sanitary and phytosanitary regulations so as not to provide a competitive advantage to Mexico in agricultural production.
- Potential environmental impacts from increased productive activity in Mexico, particularly along the Rio Grande River.
- How to avoid exacerbating the already short unskilled agricultural labor supply situation in the U.S.

Energy

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I. The Capital Crisis

Free trade in energy does not mean the same thing that is does for other industries because of Article 27 in Mexico's constitution. This mandates that the Federal government own and control development of hydrocarbons. At the same time, Mexico has the highest foreign debt in Latin America, and siphons off nearly all net revenues from the oil industry to support public projects. The upshot is that for ten years there has been a lack of capital for oil exploration and development. The tension between a history of desiring independence from U.S. influence and the need for U.S. capital to assist development efforts makes energy policy the stickiest area of trade negotiations between the U.S. and Mexico. In his November 1990 State of the Nation address, President Salinas made it clear to his Congress that oil was not a negotiable issue in the upcoming free-trade talks. Yet he has changed his position before, as in the case of privatizing banking, and must find a way to infuse as much as $6 billion a year of capital into PEMEX to keep its operations from collapsing over the next ten years. Even with 52 billion barrels of proven reserves, and potential reserves of over 700 billion barrels (oil and gas equivalents), Mexico will become a net importer of oil by the end of the decade if the capital is not provided. Already, PEMEX has been importing natural gas and refined products such as gasoline and fuel oil to meet domestic demand.

PEMEX's troubles are well documented. As a state-run enterprise, its revenues (not net income) are taxed at around 50 percent to support public projects, its work force is over seven times as large as needed, and its requirements to use domestic sources of equipment and supplies have often left it with inferior inputs that could not be used. In the late 1970s it was used by the Mexican government to borrow massive amounts of money from abroad--and private banks were anxious to sell credit with oil reserves as collateral. Service of the roughly $15 billion of PEMEX foreign debt outstanding still hinders firm operations today. Debt service and high taxes combined to bring about a decline in capital throughout the 1980s, and hence the current crisis.

The present approach to raising funds is to seek loans for specific development projects, like the Pacific Petroleum Project being sponsored by the Export-Import Bank of Japan. Payments will be in the form of future petroleum deliveries. The U.S. appears ready to give approval for $1.5 billion in EX-IM Bank financing for U.S. contractors to assist Mexico in similar oil development projects. Earlier this year PEMEX managed to sell $100 million of bonds in the U.S. and borrow $43.3 million from other countries to help in exploration and development of the massive Bay of Campeche fields. Increasing debt, however, is not the answer to Mexico's needs. Private banks and oil companies are refusing to play this game any longer, and the amount of debt raised thus far is only a drop in the bucket compared to the $16 to $20 billion that will be needed throughout this decade. Risk capital in the form of equity participation is necessary, but to date the Mexican government has not been willing to allow this to happen in oil exploration and development.

Change in government policy is inevitable, with or without a free trade agreement with the U.S. and Canada. Whether that comes in the form of a revision to the Mexican constitution, or a new interpretation thereof by the government and courts, something will happen to allow foreign equity participation in primary petroleum operations. Some analysts caution that the U.S. should leave energy out of the free trade agreement, and negotiate it later. It may be that President Salinas will not have the political freedom to negotiate this issue until after the 1991 Congressional elections. A recent public opinion poll by Mexican Miguel Basanez showed that the people overwhelmingly support free trade, and a majority even support full integration with U.S. society if it will improve living standards. So the opposition led by Cuauhtemoc Cardenas, son of the President who nationalized the oil industry in 1938, may have little wind in its sails if the current administration can convince the Mexican people that American investment is what is needed to rebuild their economy. For the U.S., caution is called for. We do not want to push the Mexicans too fast on the energy issue because that will only stir national sentiments in a country that already celebrates expropriation of American business interests as a national holiday.

II. Signs of Change

Change at PEMEX is already in the air. After cleaning house of corrupt labor, and freeing up much of the petrochemical industry to foreign capital, PEMEX has even followed the advice given by experts, such as Laura Randall of Hunter College, that it should be reorganized into a holding company with distinct operating-division subsidiaries. This was begun with the introduction of Petroleos Mexicanos Internacional (PMI) Comercio Internacional to handle marketing of products abroad in mid 1989. Immediately, PMI was able to increase exports by 100,000 b/d. At the Houston Inter-American Chamber of Commerce meeting on June 27, 1990, PEMEX officials indicated that a complete reorganization had been approved. The state-run monopoly is being broken into five operating units: exploration and production, refining and distribution, marketing (PMI), and petrochemicals and natural gas. It will be easier for the government to approve

U.S. equity participation with operating units that are not directly in the public's eye, than with the current single monopoly that is constantly under public scrutiny. But, again, this will take time. PEMEX officials stressed at the Houston conference that they are not yet ready for equity participation. They want joint ventures with payment to foreign firms in future oil. How much capital this will bring depends on the extent of interest by U.S., British, Dutch, and other firms. The more willing they are to enter into these agreements, the longer Mexico can wait before allowing equity participation. Indications at this time are that, for exploration and development of oil fields, equity participation will be necessary to entice firms to take on these expensive projects. They would much rather risk their own equity and have control over the development process, than to chance repeating the misfortune of the money center banks that rushed to loan money in the late 1970s. Equity participation is also necessary for PEMEX. Until the mid 1980s, while drilling was subcontracted out to independent national firms, payments were made until extractable oil was found. This led to a large number of wells and a small completion rate as firms found it in their best interest not to find oil; when the oil was found the contract ended. Risk-and-reward is the heart of economic development. It is the essence of Adam Smith's Invisible Hand Theorem: economic productivity is commensurate with the opportunity for individual gain. If you remove the potential for reward, you remove the incentive to take risks. The Mexicans are learning this lesson. Between 1985 and early 1990, a total of 801 (or 69 percent) of all state-owned enterprises had been authorized for divestment. Of these, 619 companies were completely privatized or liquidated by the beginning of 1990. An economic and political restructuring of Mexican society could increase indigenous wealth, and allow for Mexican nationals to have a primary equity interest in oil exploration, but the time necessary for this to happen is too long. PEMEX does not have ten-to-fifteen years to wait. The technology they need to drill deep-water wells and the funds to back such efforts are only available abroad.

PEMEX is now testing the waters of participation with foreign companies via its relationship with Repsol, the Spanish national oil company. In February of 1990, PEMEX took a 2.9 percent equity stake in Repsol with the option to increase that to 5 percent in the future. Repsol will enter Mexico via rights to market lubricants and other oil products. As a brother state-owned enterprise run by a Spanish-speaking government, Repsol is already exploring for oil in other Latin American countries, and may be the first test of Mexico's openness to foreign capital. But Repsol does not have the size or strength of U.S. integrated oil producers, and so this relationship will not meet all of PEMEX's needs. Thus it may serve to help open the door to U.S. firms in the future.

III. The Borderlands: Mexico

Oil development in northern Mexico is now history. Investment and production has been shifting to the south for ten years, and all known new oil deposits are in the south and offshore. Free trade in energy will benefit the north as a link between Mexico City and Houston. But the distances involved make

land travel beneficial only for trucking. Increased transport of equipment into Mexico will pass through this region, but these goods will for the most part be destined for the central and southern states. Northern Mexico will benefit mainly through highway construction and service industries. It will receive other spillovers as some new oil service firms find it beneficial to set up headquarters in this region because of the equidistance to Mexico City and Texas cities.

IV. U.S. Benefits from Free Trade

Texas's fortunes no longer rise and fall with the price of petroleum. From a high of 27 percent in 1981, energy's share of Gross State Product has fallen to 15 percent. Secondary industries have become more important as petrochemicals production led the 1987-88 Texas recovery, and continue to add thousands of jobs per year along the Gulf Coast. While drilling and exploration experienced a miniboom during 1990, fueled by horizontal drilling in South Texas to take advantage of higher oil prices, petroleum employment remains 45 percent below its 1982 peak of 324,000. Production will continue to fall throughout the foreseeable future, with or without price rises or free trade agreements.

The Texas side of the Rio Grande will benefit from freer trade in energy in much the same way as the Mexican side: as part of the transportation and warehousing network. The infrastructure is already in place for firms that service Maquiladoras. To the extent that foreign capital is welcomed to build the Mexican oil industry, our refineries and petrochemical plants gain by having continued access to Mexican oil. While oil is a fungible commodity, so that ultimately it does not matter where it is produced, increased Mexican supply will help to maintain moderate oil prices for the foreseeable future. That reduction in risk makes it easier for our firms to make capital-budgeting decisions. At present, Mexico is only the fifth largest external source of U.S. oil supply, behind Saudi Arabia, Venezuela, Nigeria and Canada, but its massive undeveloped reserves and close proximity make it an important long-term supplier.

Free trade also increases the likelihood of future investment by PEMEX into U.S. refineries and petrochemical operations. They have a precedent of foreign investment with the Repsol deal, and may be forced by market pressures to emulate Saudi Arabia and Venezuela who already have equity in U.S. oil refineries. As much as the Mexicans do not want to sell more than 50 percent of their oil to the U.S., they are doing so, and it only makes sense for them to secure that relationship via downstream integration.

Apart from investment in production, coastal areas of the U.S. will benefit from free trade due to new opportunities for service contracts. The Mexicans are open to these because subcontractors do not have to have equity stakes in Mexican oil production. But as mentioned earlier, the size and duration of this benefit depends on the ability of the PEMEX to raise the capital necessary to maintain existing facilities as well as build new ones.

Another consideration for U.S. firms will be tax laws. Over 80 percent of all exploratory drilling in the U.S. is done by independent firms, and they are still smarting from the elimination of percentage depletion in the Tax Reform Act of 1986. An important part of negotiations on energy, therefore, will be the national and international tax implications for firms that become involved in Mexican oil exploration.

V. Summary

As Texas oil production continues its inevitable decline, the viability of the industry will be dependent upon increased opportunities in Mexico. The Mexican government needs to find a way to free PEMEX to raise as much as $25 billion throughout the 1990s in order to maintain its current productive capacity and begin to exploit major fields in the Bay of Campeche. The funds are not there internally, and so the question is how will they be obtained externally? To date, PEMEX has raised nearly $2 billion through loan-type agreements in which payment is in future oil. It is unlikely that there is much more room for this type of agreement because it depends upon foreign governments; major integrated oil producers want equity participation in return for their exploration and development expertise, and independents need the same inducement for drilling. Texas' oil industry needs the Mexican connection in order to maintain its rebound from the mid-1980s slump. There are certainly potential gains from trade, but the ball is in Mexico's court. Because of their historical-cultural emphasis on independence from U.S. influence, the U.S. must patiently wait while the Salinas government reforms and restructures PEMEX. We must keep the lines of communication open and continue to respond favorably to Mexican requests for assistance like the Export-Import bank loans. But for the sake of both private U.S. industry and PEMEX it is best to limit such funds so that PEMEX and the Mexican government learn to wean themselves from debt financing and to encourage development through the private sector.

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Retail Trade

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I. Executive Summary

The long term prospects for retail trade in the border region under a free trade agreement are positive. An economy is not driven by retail trade, but rather by construction, manufacturing, tourism, government jobs, etc. All of these "driving" industries should grow along the border as a result of the free trade agreement. Many retailers and wholesalers along the border will take advantage of opportunities to expand their businesses on both sides of the border. However, it will probably be four or five years before the full economic benefits will be felt. In the interim some retailers on the United States side of the border may be adversely affected, particularly smaller retail establishments which currently depend heavily upon walk-over customers from across the border.

II. Assumptions

It is assumed that there will be complete removal of all tariffs on processed and finished goods as a result of the free trade agreement, and that this will have some effect on the considerable cross-border trade which already occurs in the border cities.

III. Advantages of a Free Trade Agreement

There is a general feeling that what is good for the border economy as a whole will ultimately be good for the retail businesses along the border. The towns along the border have been for some time largely integrated economically by the movement of consumers back and forth across the border. If the border economy prospers because of the free trade agreement, this will create additional economic activity for a wide range of businesses, from manufacturing, warehousing, transportation, utilities, construction, and services such as

advertising and legal services. This in turn will provide additional business for retail establishments in the border areas.

The economic reforms which have taken place in Mexico over the past five years already have helped to stabilize the Mexican economy, slowing the inflation rate and making for a more stable value for the peso. These changes have created a more favorable climate for doing business in Mexico. Improvements are being made in the Mexican infrastructure which also will make doing business with Mexico, and in Mexico, easier for the future. It is anticipated that the free trade agreement will open the way for many retailers and wholesalers on the United States side of the border to expand their businesses into Mexico to take advantage of the growing Mexican market.

IV Disadvantages of a Free Trade Agreement

Most retailers feel that until there is a sizeable growth in the economy on the border, small retailers on both sides of the border may suffer, some severely. Retailers on the United States side fear that after trade barriers are reduced they will no longer have an advantage over Mexican retailers in terms of product selection and quality, and that they will not be able to compete with Mexican retailers because of lower rents and wages in Mexico. Wholesalers and some retailers on the Mexican side fear that competitors from the United States will come into Mexico with more goods, cheaper prices, and more technology, and drive them out of business.

Some retailers along the border depend heavily upon purchases by Mexican consumers who come across the border to take advantage of the wider product selection or the more competitive prices. To the extent that the free trade agreement neutralizes these advantages of retailers in the United States, their business is likely to be affected. This effect will be diluted somewhat by the rule of origin requirement of the free trade agreement since for some retailers the products purchased by Mexicans in the United States are not made in the United States, and thus will not be eligible for tariff-free entry into Mexico.

There is considerable skepticism on the part of businessmen on the United States side of the border that they will really have access to the Mexican marketplace. There is suspicion that the bureaucracy will find ways to keep them out. Merchants on both sides of the border wonder whether they will receive fair and equitable treatment from the other side. The local bureaucracy will have to cooperate to make free trade work, and this may take time.

Drug stores and pharmacies on the United States side of the border are very concerned that the Food and Drug Administration restrictions which they must follow will not apply in Mexico. If not, this will allow consumers to go into Mexico and buy drugs over-the-counter that require prescriptions in the United States. This will hurt drug stores on the United States side.

The bridge crossing issue is a matter of great concern to retailers. The bridges are already very congested, and Mexican consumers have to put up with much inconvenience and some indignity at the hands of custom and immigration officials in order to come to the United States to shop. There is concern that, unless this situation improves, the increased range of product selection in Mexico as a result of free trade will cause consumers there to do their shopping in Mexico so as to avoid the unpleasantness of crossing the border. There is a feeling that Mexico is far more progressive in customs regulations, and that the Immigration and Naturalization Service in Washington needs to be educated concerning border relations.

V. Recommendations

The following measures will help to assure that the retail trade sector benefits from a United States-Mexico free trade agreement:

- There should be complete removal of all tariffs on processed and finished goods at the time the free trade agreement goes into effect, rather than gradual reduction.

- A mechanism should be established to promote fair competition in advertising. United States advertisers must be able to have confidence that their advertisements are being run in accordance with their contracts. Mexico needs standards in this area similar to those of the Federal Communications Commission, and these standards need to be monitored in order to assure truth in advertising.

- There needs to be movement toward parity of the Food and Drug Administration and the Mexican counterpart agency in the treatment of permits, labeling, etc. The retail drug industry in the United States could suffer serious adverse effects if this does not happen.

- Mexico and the United States should work together to develop a bridge fee system which is consistent and which facilitates movement of commercial and individual interests across the border. Rate increases could have a dramatic effect on consumer access to the United States market.

- The United States and Mexico should facilitate the rapid expansion of ports of entry along the border. These should be given high priority.

- The national, state and local governments should plan for and push forward with a rapid expansion of border infrastructure of various types in preparation for the increased growth of the border region.

- There should be a program to elevate the awareness of customs officials as to the needs and concerns of individuals crossing the border in order to facilitate border exchanges.

- Foreign investment laws need to be revised in Mexico to provide national treatment of foreign firms and foreign property ownership. This is essential if retailers from the United States are to take advantage of opportunities for expansion into the Mexican market.

- Better protection of intellectual property rights in Mexico would make it easier for some retail businesses to operate there.

- The Small Business Administration should consider establishment of a center to focus on education and marketing for firms that are interested in selling their products or setting up a business in Mexico.

- The United States Department of Commerce could stimulate development of the border region by providing businesses from other parts of the United States with exposure to procedures and strategies for doing business in Mexico.

Manufacturing

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I. Executive Summary

There is already a de facto FTA - the "silent integration" of the U.S. and Mexico has been in progress for many years. The slowdown in the U.S. is already affecting the growth rate of the maquiladoras or in-bond industry which now employs some 500,000 workers and represents 80% of Mexico's manufacturing exports.

U.S. firms are attracted to Mexico rather than Taiwan or other Asian countries because of lower labor and transportation costs, and the opportunity to locate managers and technicians in U.S. border states and exercise control of day-to-day operations from U.S. headquarters. Mexico is desperate for jobs, technology, and investment for its youthful and growing population.

Many U.S. firms already use Mexican manufacturing and assembly operations to defend their market share against Asian sources. This helps to preserve U.S. jobs and to climb the skill and knowledge "ladder" of the international division of labor. U.S. jobs in research and development and component manufacturing, lower prices for U.S. consumers, and sales in Mexico are important advantages from Mexican manufacturing trade. The geographical shifts in the location of manufacturing and assembly plants will create perceived imbalances, both in terms of the U.S. and Mexico as nations, and in terms of U.S. regional investment.

Attention should also be paid to ensuring access to the Mexican market for U.S. producers. In addition to reducing tariffs, Congress should emphasize the importance of nontariff barriers. Companies in the borderlands can provide valuable insights regarding the challenges of trading goods with Mexico.

II. Assumptions

1. There is a basic difference between "free trade" and a European-style "common market", and most people are not really clear about the definition of these terms. In particular, they tend to assume that there will be freer flow of Mexicans into the U.S., when a Free Trade Agreement is supposed to keep Mexicans working in their own country.

2. There is already a de facto FTA - the "silent integration" of the U.S. and Mexico has been in progress for many years.

3. The U.S. subsidiaries of Asian or European multinationals with manufacturing or assembly operations in Mexico will be treated the same as U.S.-owned parent corporations.

4. U.S. parent facilities, including Japanese "transplants," will maintain the higher skilled jobs in research and development, component manufacturing, purchasing, accounting, finance, and marketing.

5. The single most important factor in the growth of Mexico's economy and trade with the U.S. is the condition of our economy here. The slowdown in the U.S. is already affecting the growth rate of the maquiladoras or in-bond industry which now employs some 500,000 workers and represents 80% of Mexico's manufacturing exports.

6. The net impact of the maquiladora industry on U.S. employment is marginal because the increase in component manufacturing jobs in the U.S. offsets the loss of lower level assembly jobs to Mexico.

7. U.S. firms are attracted to Mexico rather than Taiwan or other Asian countries because of lower labor and transportation costs, and the opportunity to locate managers and technicians in U.S. border states and exercise control of day-to-day operations from U.S. headquarters.

8. Canada will be involved in the U.S.-Mexico free trade negotiations.

9. "Outward Processing Relief Arrangements", Europe's maquiladora program utilizing Yugoslavia, Hungary, Romania, Poland, and Czechoslovakia, will continue to attract foreign investment from Germany, Japan, the U.S., and other countries.

III. Advantages of Free Trade with Regard to Manufacturing

According to a Bush Administration source, the U.S. wants a Free Trade Agreement with Mexico to encourage the Salinas Administration "right think",

including free trade, privatization, relaxed foreign exchange controls, and the permanence of law for the new, more liberal foreign investment regulations put in place in May, 1989. Furthermore, the failure of the Uruguay Round of multi-lateral GATT negotiations encourages bilateral or trilateral efforts with Mexico and Canada. The energy and experience of the GATT negotiators can turn to a North American free trade framework. Also, the petroleum resources of Mexico are increasingly attractive in an uncertain world.

On the Mexican side, a key factor driving an FTA is the integration of Europe in 1992, along with a desire to attract investment from Europe, particularly Mexican wealth in Swiss banks. Mexico is desperate for jobs, technology, and investment for its youthful and growing population.

At the level of individual companies, the great attractions of Mexico as a manufacturing location are lower costs and proximity. Many U.S. firms already use Mexican manufacturing and assembly operations to defend their market share against Asian sources. This helps to preserve U.S. jobs and to climb the skill and knowledge "ladder" of the international division of labor. U.S. jobs in research and development and component manufacturing, lower prices for U.S. consumers, and sales in Mexico are important advantages from Mexican manufacturing trade. Multinational corporations will also continue to export to countries outside North America. Small to medium companies in the U.S. can join in the battle to overcome our traditional weakness in international trade by getting their feet wet in maquiladora shelter programs which take care of hiring Mexican workers, transportation and import/export functions, and relations with the Mexican government. There will also be opportunities for small U.S. manufacturing firms to sell to Mexican maquiladoras and domestic firms, especially if the transition to international business is simplified and supported.

Here in the borderlands, we are already experienced with maquiladoras since 80% are located nearby in northern Mexico. Border cities like San Diego are gateways and commercial centers with a great deal of knowledge about U.S.-Mexico commerce and barriers to trade. There are also many U.S. nationals with a sensitivity to the Mexican culture.

IV. Disadvantages

The geographical shifts in the location of manufacturing and assembly plants will create perceived imbalances, both in terms of the U.S. and Mexico as nations, and in terms of U.S. regional investment. There is likely to be a continuing movement of plants from the Northeast and Mid-West toward the Southwest and Mexico. Furthermore, there will be more Mexican plants located in the interior versus northern border states such as Baja California.

Within Mexico, U.S. companies will operate in an environment characterized by increased demand for labor, higher wages, more competition for workers, and the opportunity to compete with relatively weak domestic firms for

sales in Mexico. This increased demand for manufacturing labor will cause a drain from other sectors, but this will be offset by high unemployment and underemployment as well as the growing number of young people entering the work force. The inability to negotiate an agreement on agriculture is a serious threat to an FTA, along with a U.S. recession, popular resentment of undocumented Mexicans, and the desire to use the FTA as a weapon in the war on drugs.

Mexico, like Canada, is very concerned about its national sovereignty, and there are more specific concerns about the fate of Mexican companies in competition with U.S.-based corporations. In addition to pressure to protect Mexican industry, especially petroleum exploration, there is strong sentiment about protecting agricultural "ejidos" or communal lands. The emergence of effective anti-foreign-investment political opposition in Mexico is also a threat to an FTA.

V. Prospects for Free Trade

Driven by events unfolding in Europe, more and more U.S. citizens and leaders are developing a vision of a North American Free Trade Area. Many of the more experienced business and political figures now regard an FTA as inevitable. However, there are important concerns about the difficulty of achieving Mexican political reform and human rights given the tradition of PRI dominance.

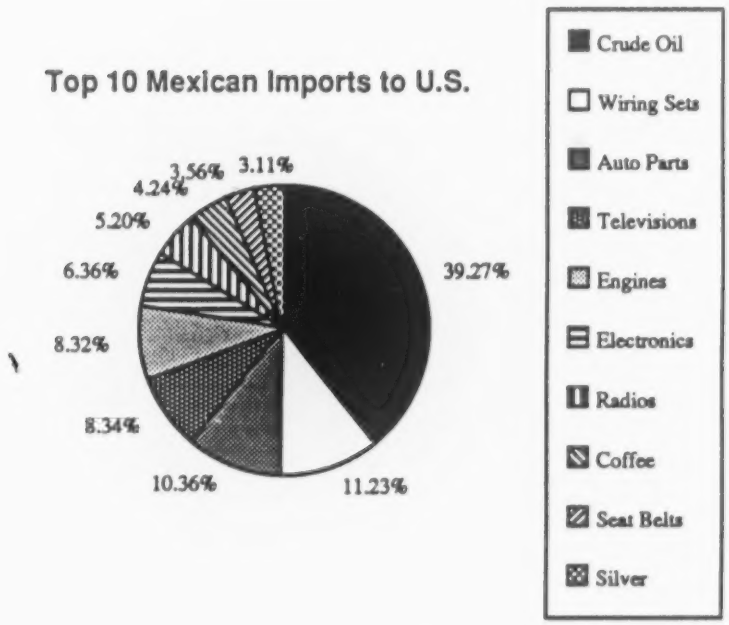
Using 1989 data from the U.S. Bureau of the Census, it is possible to get a picture of existing import-export patterns between the U.S. and Mexico.

Mexico sells us crude oil; insulated wiring sets for vehicles, ships, and aircraft; motor vehicle parts and accessories; color television receivers; internal combustion piston engines and parts; parts for radar, radios and televisions; radio broadcast receivers; coffee; seat belts; and silver. In return, the U.S. sends Mexico motor vehicle parts and accessories; parts for radar, radios and televisions; wiring sets; auto body parts and accessories; non-crude oil, corn and seed, data processing accessories, components for electronic circuits; grain sorghum, and soybeans. The U.S. is still a net importer of Mexican goods, but our exports are gaining ground and the gap is narrowing.

According to the U.S. Embassy in Mexico City, the 10 best U.S. export prospects are oil and gas field machinery and equipment, electric power production and distribution equipment, computer systems and peripherals, computer software and services, agricultural equipment, ceramics and glass equipment, telecommunications equipment, pollution control equipment, hotel and restaurant equipment, and medical instruments, equipment and supplies.

Top 10 U.S. Exports to Mexico

Top 10 Mexican Imports to U.S.



In the short run (2-3 years), it seems likely that there will be increased interest and investment in the maquiladora program, although it will be limited by the threat of a continuing U.S. recession and Mexican wage increases. In the long run (4-10 years) there will be more investment in Mexico by companies based outside North America to gain access to lower cost production and the world's largest market.

VI. Critical Factors

The biggest threats to an FTA are the U.S. Congress and a deep U.S. economic downturn. Congressional representatives, particularly from border states such as California and Texas, must not strongly oppose an FTA or fast track negotiations will not be allowed. This implies that there be few perceived "losers", such as certain segments of the California agriculture industry.

The term "infrastructure bottlenecks" covers a range of critical factors for trade, including the problems of Mexican border cities and the strains on U.S. Customs inspection facilities. Mexican workers drawn to Tijuana, Nogales, or Ciudad Juarez from the interior by economic growth there, or the lure of the U.S. labor market, put strains on border cities on both sides. Housing, water, sewage treatment, roads, public health facilities, government services, and other resources are often inadequate.

Manufacturing infrastructure also includes efficient suppliers, toolmakers, injection molders, and the availability of skilled tradesmen. Given the weakness of U.S. and Mexican border states in this regard, development of better vocational education and training, as well as industrial technology engineering and management resources are crucial.

Mexico's debt service is a huge drain on their economy, and some economic models based on the concept of "managed trade" as opposed to free trade suggest that relief in this area would result in a better outcome for both countries. It would be useful to explore the possibility of negotiating a reduction in Mexico's debt payments.

VII. Priority Issues for Congress

Overall, Congress should seek to establish a "level playing field" so that U.S. firms enjoy the same economic conditions as Mexican companies with respect to trade of manufactured goods. The Salinas Administration in Mexico has eliminated a great deal of "red tape" in terms of foreign investment, and those regulations and openings need to be converted into more permanent laws. Attention should also be paid to ensuring access to the Mexican market for U.S. producers. In addition to reducing tariffs, Congress should emphasize the

importance of non-tariff barriers. Companies in the borderlands can provide valuable insights regarding the challenges of trading goods with Mexico.

More specifically, Congress should insist on an action timetable providing for meaningful progress on several important issues. In the area of trucking, there is an asymmetry in that Mexican trucks and drivers are allowed into the U.S., but only U.S. containers may enter Mexico. Regulations, and more importantly their enforcement, are crucial with respect to hazardous waste and occupational safety and health in Mexico. Many companies are concerned about rules of origin under an FTA. Mexican labor unions, traditionally driven by Mexican politics rather than market forces, could create disruptions in the form of demarcation disputes, or significantly raise the costs of trade in manufactured goods. Small U.S. companies may need support in the form of financial guarantees or financing for exports to Mexico. U.S. manufacturers should be allowed to bid on Mexican government contracts. There is also the problem of subsidized Mexican products, such as cement, being dumped in the United States.

Financial Services

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I. Introduction

A U.S.-Mexico Free Trade Agreement will involve not only a free trade in goods, but also liberalization of trade in services. In this article, I will concentrate on a very sensitive topic, at least for Mexicans, that being the integration of the U.S.-Mexico financial markets. To do so, let me start with a short history of the Mexican financial system.

II. History of Foreign Investment in the Mexican Banking System

In the late 1800s, the capital of the largest Mexican banks and some of the medium-sized banks came mainly from France, the U.S.A., England, Germany and Holland. The following list indicates the influence of foreign investment in the most important financial institutions in Mexico during the foundation of the Mexican banks in the late 1800s and early 1900s.

1. Banco Nacional De Mexico - At the beginning of this century, 70.3% of its capital stock was owned by French shareholders, according to a very reliable Mexican source.[1]

2. Banco De Londres y Mexico - According to the same source at the end of the Porfirio Diaz period (1910) 46.5% of the capital stock of this bank was owned by French shareholders. There were also foreign investors from the USA and Spain whose percentage of holdings cannot be determined.[2]

3. Central Mexicano - This institution was founded in 1899 and half of its capital stock was subscribed by the Deutsche Bank and the Bleichroeder, from Germany, as well as by J.P. Morgan from New York.[3]

4. Mexicano De Comercio E Industria - This institution was founded in 1906 with investors from Germany, Mexico and the USA. Luis Nicolau has noted

that the German investment in this institution was the larger one, and that it came mainly from the Deutsche Bank and the Deutsche Ueberselische Bank.[4]

5. In 1909 and 1910 the Deutsche Südamerikanische Bank Aktiengesellschaft opened branches in Mexico City and Torreon, Coahuila, Mexico.[5]

French investments during that period amounted to 34.4% of the stock Peninsular Mexicano; 50% of the stock of Banco del Estado de Guanajuato and 37% of the stock of the Banco del Estado de Mexico.[6]

In the same period USA investors owned the Bank of America in Mexico City, the Bank of America in Torreon and the United States Banking Co. in Mexico City.[7]

6. Banco Internacional E Hipotecario De Mexico (International and Mortgage Bank of Mexico) - In 1902, the USA investment in this institution represented 55% of its capital stock.[8]

Luis Nicolau has presented the following table showing the importance of foreign investment in the Mexican banking system by country of origin during the first decade of the 1900s.[9]

Foreign Investment in Mexican Banks

Country of Origin		Pesos	%
France		99,994,000	60%
USA		34,328,300	21%
England		17,557,900	11%
Germany		12,000,000	7%
Holland		2,000,000	1%
	Total	165,880,200	100%

The legal framework for the Mexican banking system has its roots in the late 1920s with the foundation of the Mexican Central Bank. From that time through 1965, several banking laws were passed to regulate a very dynamic industry. Foreign investment in Mexican banking institutions was diminished and the post-revolutionary governments tried to gradually Mexicanize the ownership of the Mexican banks. During the last part of that period Mexican banking law established that banking charters could be revoked if the majority of the stock in any bank were owned by a foreign government, or if there were proof of a dependent relationship with foreign banking institutions.

On December 30, 1965 there was a decree published in the Official Gazette which amended Section II, Article 8 of the Mexican Banking Law. The amendment states that, "By no means, can a foreign government or foreign governmental entities, foreign financial institutions or a group of foreign individuals, participate in any kind of stockholding positions in any Mexican Banking Institutions."[10]

Because of a grandfather clause, foreign investment which took place prior to that regulation was allowed to remain in the banks, but the regulation prohibited new foreign investment in Mexican banking institutions. Consequently, the percentage of foreign investment in the Mexican banks was gradually diminished as banks increased their capital.

During the middle and late 1970s, when international banks were eager to provide credit to Mexico, there was a great increase in the number of representative offices of foreign banks in Mexico. These offices have the constraint that they cannot capture deposits in the Mexican market. However, they can serve as a link between Mexican potential borrowers and their main headquarters abroad.

Before president Jose Lopez Portillo nationalized the banks in 1982, the Mexican banking system was structured as follows at the national level:

1. Private Banks - Banks owned by private persons. They operated by concessions granted by the Mexican government. Most noteworthy among these were: Bancomer, Banamex, Serfin, Comermex, Atlantic, Confia, Banpais.

2. National Banks - These are the official banking sector and they are created by their respective organic laws. The most important institutions within this sector are: Banobras, Nafinsa, Banrural, Banco Nacional Monte De Piedad, SA, Banco Nacional Del Ejercito y La Armada.

3. "The Banca Mixta" - This kind of banking institution that began to be delineated during the Echeverria years is characterized principally by the fact that the state participates in the capital stock of certain credit institutions along with individuals. Further, these institutions operated under a charter or concessions. Among the most outstanding institutions within this category are: Banca Somex, Banco Internacional, and Banca Promex.

The expropriations decree signed on September 1, 1982 by former president Jose Lopez Portillo affected only the private banks. Article 5 of the Decree which established the nationalization of private banks stated that there would not be expropriation of the national banks, the "Banca Mixta", the Citibank, N.A. or the representative offices of the foreign banks.[11]

III. Mexican International Capital Outflows as a Major Deterrent in the Liberalization of the Mexican Financial Market

During the now famous "stabilizing development period" of 1954-1970, the Mexican government followed a consistent monetary and exchange rate policy. As a consequence, the Mexican economy experienced growth at 6.5 percent average annually and registered very low rates of inflation.[12] The Banco de Mexico set up a fixed rate for the peso and expectations regarding changes in the future value of the peso played an insignificant role. In general, the relatively moderate inflation rate, the attractive investment climate (enriched by a whole range of incentives), the stability of the system, and the prospects for assured growth encouraged Mexican investors to keep their funds at home and attracted considerable investment from abroad. During this period the behavior of short-term private international capital flows in Mexico started to give some indication of their potential to disrupt the stability of the financial system.

Prior to August 1982, Mexican banking law allowed national investors to hold deposits in foreign currencies. To this extent, the dollar/peso demand deposit ratio was used as an indicator of expectations regarding the future value of the peso. In other words, investors could protect themselves against future changes of the value of the peso by buying foreign financial assets in Mexico. This situation led Guillermo Ortiz to say that "domestic investors will find little incentive to maintain deposits abroad and, consequently, short-run speculative capital flows should be reduced.[13]

It was not really until 1973 that private international capital outflows became particularly important, and at that time their behavior had a substantial feedback impact on the macroeconomic policies that the government was trying to implement. Sidney Weintraub mentions, for example, that according to data in "The Future for Mexico," [14] capital flight was estimated at $4 billion dollars in the eighteen months preceding the devaluation of 1976. Between 1973 and 1976, an accumulated current account deficit of $10.5 billion was recorded - financed essentially by public sector's borrowing, largely from commercial banks. Indeed, the authorities probably needed to borrow more than that merely to offset the flight of private capital (estimated at between $3 billion and $4 billion in 1976) alone, as the imminence of devaluation became clear.[15] Referring to the year 1981, Basil Caplan points out that "toward year-end, a flight of capital began to take place on an increasing scale, eventually reaching $1 billion a month, and the government had to make large short-term borrowing to shore up the reserves."[16]

Carlos de Pablo estimates that between 1970 and 1983 about $30 billion was deposited abroad by Mexicans, and cites Banco de Mexico estimates of net capital outflows from Mexico in excess of $13 billion during this same period. The errors and omissions item of the Mexican balance of payments showed capital outflows for this period of $24 billion, $16 billion of which are attributed by Pablo to capital flight.[17]

It has been said that during the presidential administrations of Echeverria and Lopez Portillo, ill-advised policies were employed to correct the balance of payment deficits. For example, according to the International Currency Review the main difference between the Brazilian and the Mexican borrowing from abroad lies in the fact that Brazilian borrowing "has represented finance for specific projects - often projects which are intended to earn foreign exchange in the future...Virtually none of the major Brazilian loans have been balance-of-payments financing."[18] In contrast, Mexican authorities have followed a policy of external borrowing not only to offset disequilibria in the current account but also to counterbalance negative effects of short-term speculative capital flight.

At the outset of the presidential term of Miguel de la Madrid (1982-1988), the main short-term goals were: (a) control of the explosive rate of inflation; (b) control of balance of payments crises; (c) control of the financial disequilibrium of the public sector; (d) restructuring of the public and private external debt to attain longer payment terms at lower interest rates in order to avoid debt repudiation.

The first goal (control of the inflation) was attained only during 1983. After that the inflation rate was out of control and was put aside as a major variable to be controlled. According to Luis Pazos, under the Miguel de la Madrid presidential term inflation rates reached the highest levels in the modern history of Mexico at 83.4% average per year.[19]

The second goal (control of balance of payments crises) was definitely reached throughout the entire period. Balance of payments crises were avoided due to the so-called crawling peg foreign exchange regimen which avoided disequilibrium in the external sector. We have to remember that foreign credit was not easily obtainable in the international financial market. Therefore, this foreign exchange policy avoided a major balance of payments crisis and a major need for foreign resources, even though it fueled inflation in the Mexican economy.

The third goal (control of the financial disequilibrium of the public sector) was manageable, but the elimination of this goal needed major structural changes that de la Madrid was not able to implement.

The fourth goal (restructuring of foreign debt) was attained through hard negotiation with the international banking community, even though it was not enough for Mexico at that time to reassume its growth.

De la Madrid's policies avoided a political and economic collapse of the Mexican system, but there was no economic growth during his presidential term. Capital flight from Mexico increased. That means that the Mexican demand for dollars shifted from the Mexican market to the U.S. market as a result of the legal constraints against dollar deposits in the Mexican banks, and the lack of confidence of the Mexican people in the policies of the Mexican government.

Scholars do not agree regarding the amount of Mexican capital flight. Whereas Jorge G. Castañeda considers a figure of $35 billion acceptable,[20] Luis Pazos mentioned for the same period (1977-1987) $84 billion U.S.[21] This last figure represents 80% of the total Mexican external debt.

In order to prevent capital flight, Mexico must recognize that there is a very important real demand for dollars from its own citizens. This demand for dollars could not be prevented by the nationalization of the Mexican banks, and so long as it is not a function of illegal activities it must be recognized as legitimate and must be constitutionally guaranteed. Also, the Mexican government must implement, as President Salinas is doing, drastic economic changes to have the state withdraw its intervention from areas which should be more efficiently managed by the private sector. These policies should pursue as major goals:

1) Control of the inflation rate not only in the short-run but also in the long run.

2) Resumption of the economic growth that Mexico used to have during the sixties, that is to say 6% per year.

3) Restoration of the deteriorated real purchasing power of the Mexican people.

4) Implementation of a more efficient legal system to protect individual property rights.

5) Major cooperation between the U.S. and Mexican governments on these issues by signing a U.S.-Mexico Free Trade Agreement which incorporates the financial sector.

IV. The Mexican Private and Public Sector And The Need For Foreign Financial Resources

During the "stabilizing development period" of 1954-1970, Mexican governments applied fine tuning fiscal and monetary policies which provided the Mexican economy and political system with stability and growth.

The private sector played a very important role during this period of sustained growth. Experts at that time called the Mexican economy the "Mexican Miracle". The Mexican banking institutions were very active in supporting the private sector. After that period, expansionary fiscal and monetary policies were implemented during the Echeverria (1971-1976) and Lopez Portillo (1976-1982) periods. The result was that private investment was crowded out by public investment. During these two presidential terms, Mexican banks served as instruments to finance the deficit of the public sector. As a result, there was a lack of domestic financial resources available to the private sector. That situation, plus a foreign exchange policy of maintaining an overvalued Mexican

peso, caused the private sector to heavily demand external financial resources to expand its plant and equipment.

As a result of the above expansionary economic policies, both the public and the private sectors of Mexico ended up heavily indebted to foreign credit institutions. Luis Pazos states that, according to Banco de Mexico, the Mexican economy will require financial resources from abroad of more than $6.2 U.S. billion per year during the period of 1989 through 1995 to attain average annual growth of 5.1%.[22]

The relevant question is, does Mexico really need to increase its external indebtedness to attain that rate of growth of 5.1%? Could Mexico not replace that policy of indebtedness with a new policy of attracting more foreign investment and attracting more capital deposited abroad by Mexicans?

I believe that for the short-run (2 or 3 years) Banco de Mexico is correct, but after 2 or 3 years Mexico will have a great opportunity to attract foreign investment and the deposits held by Mexicans abroad. To do so, President Carlos Salinas de Gortari is working in the right direction. Mexican citizens repatriated $3 billion US in 1989 and $1.6 billion in 1990.

V. Roles of U. S. and Mexican Banks under a U. S. - Mexico Free Trade Agreement

During the present administration of Carlos Salinas foreign investment again is allowed in the Mexican banking system. Foreigners can participate in the capital of a Mexican banks up to 30% by holding "C" stock.

However, if Mexico and the United States sign a free trade agreement which incorporates the financial sector, U.S. financial institutions as well as Mexican institutions could contribute to improving the living standards of Mexicans and Americans if speculative activities are eliminated.

Foreign branches could be allowed to operate in each country respectively. Mexico perhaps could restrict the penetration in the Mexican market of U.S. bank branches to the servicing of U.S. multinational corporations which observe positive trade balances. By allowing foreign banking branches in each country (U.S. and Mexico) the main common advantage will be:

1. Foreign U.S. investment in Mexico will be fully supported by foreign U.S. financial resources. This will accelerate the degree of U.S. direct and portfolio investment in Mexico. Loans made by U.S. banks branches can be secured by collateral in the U.S. or in Mexico. U.S. bank branches can closely supervise the uses of the loans that they extend in the Mexican market.

2. Loans in Mexico could be made at lower rates than present rates. This is due to the fact that the loan market will be more competitive.

3. Mexican banks can keep correspondent banking accounts with U.S. branches in Mexico. In this manner substantial amounts of Mexican banking financial resources will not need to be deposited abroad and can be recycled into the Mexican economy.

4. The Mexican private sector could have more access to foreign credit. U.S. branch personnel could become more acquainted with the Mexican laws and culture.

5. By having Mexican bank branches in the U.S., Mexican banks could offer more expedient financial service in such areas as: 1) Mexican Letters of Credit (which could be secured by the Foreign Credit Insurance Association), especially when they are issued in Mexico. 2) If the Letters of Credit are issued by a Mexican bank branch then it will not be necessary to have the protection of the FCIA. 3) International wire transfer. 4) Collections, etc.

6. Mexican bank branches in the U.S. could attract deposits held abroad by the Mexican public sector as well as deposits from the Mexican private sector. The deposits from the private sector should be insured against any political risk.

7. The rate of return on loan portfolios of U.S. banks will be higher in Mexico than in the U.S. due to the scarcity of financial resources in Mexico.

8. Border banks will experience different effects as the U.S.-Mexico financial sector is being integrated. Those U.S. banks on the border which are experiencing diseconomies of scale will face harder competition in offering international services, to the point that these banks may exit the market sooner than has been anticipated. Border banks which are experiencing economies of scale will have a great opportunity to enter into the Mexican financial market to compete with the largest U.S. banks for deposits of multinational corporations, as well as to compete in the Mexican lending market.

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Investments

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International flows of direct investment are, in the modern economic world, a natural complement to flows of goods and services. A significant portion of all world trade now consists of products traded among units of the same firm. This is especially true for trade between Mexico and the United States, which already has high levels of intra-firm trade as a result of the Maquiladora program.

Consequently, a free trade area between Mexico and the United States would have a dramatic impact on the flow of direct foreign investment within the area. A large part of the increased U.S. imports from Mexico would be from Mexican affiliates of U.S. firms which expanded their Maquiladora operations (or created new ones) to take advantage of Mexico's more favorable wage rates. While the bulk of new foreign investment would flow from the United States to Mexico, a free trade area would also open up new opportunities for Mexican investment in the United States.

U.S. Investment in Mexico

Foreign direct investment plays a small but rapidly growing role in Mexico's economic development. In 1988, the stock of direct foreign investment was slightly more than $26 billion with a five-year record of annual growth rates exceeding fifteen percent. Still, foreign direct investment represents less than five percent of gross fixed capital formation in Mexico and seven percent of private fixed capital. Of the total stock of foreign direct investment, U.S. investments account for roughly two-thirds. The next most important investors--the United Kingdom, West Germany and Japan--each account for approximately five percent of Mexico's foreign direct investment. The major U.S. investments are in automobiles, chemicals, paper, and electronics.

Mexican Policies toward Foreign Direct Investment

Mexico has historically placed tight controls on foreign investment, but starting in the 1980s, and especially since 1989, the Mexican government has very substantially liberalized policies toward foreign investors. In May, 1989, the government permitted automatic or near automatic majority foreign ownership of companies in many sectors of the economy. Much of this progress can be attributed to the 1987 Framework Agreement which developed a consultative mechanism for resolving trade and investment disputes. However, a number of industrial sectors remain off limits to foreign investors.

Effects of a Free Trade Agreement on Investment

The effects of a free trade agreement on investment will depend on the types of investment rules adopted. A free trade agreement with no change in current investment policies would produce one pattern of investment, while an agreement with essentially no restrictions would produce quite a different pattern. The most likely investment policy scenario is something between these two.

Investment Policy Issues

Equity restrictions

Mexico still restricts foreign investment in a number of economic sectors, ranging from total bans (34 categories) to required minority positions for foreign partners, while the United States has similar restrictions on only a half dozen categories, such as airlines, maritime, and broadcast media. Economic efficiency would improve if both countries dropped their restrictions, but in both countries security and political arguments are advanced to reserve certain industries to domestic firms. A key question is how many currently restricted industries could be pared off of each country's list.

Investment incentives and performance requirements

Mexico provides investors with a number of investment incentives, including tax credits and accelerated depreciation. Some regional authorities offer holidays on local taxes. In return for the incentives, the government stipulates certain performance requirements relating to location, industry type, employment levels, and use of domestically produced capital equipment. These and other incentives have given rise to a number of countervailing duty cases. At

the beginning of 1990, ten countervailing duty orders were in effect against Mexican producers on products ranging from automobile glass to ceramic tile. Mexico has taken steps to liberalize some of the domestic content performance requirements. For example, in automobiles, domestic content requirements for autos have been lowered from 60 to 36 percent.

One measure of success of the free trade agreement would be the reconciliation of differences on what constitutes unfair trade practices, including countervailing duties as well as dumping. The U.S.-Canada Free Trade Agreement has established special procedures for resolving trade disputes, using binational panels, rather than domestic judicial review. While these panels have yet to demonstrate their effectiveness, no other alternative form of dispute resolution seems consistent with a free trade agreement. Thus, a key element in a U.S.-Mexico free trade agreement would be the creation of binational or even possibly trinational panels (including Canada) to hear complaints over subsidization and dumping of exports.

Bilateral Investment Treaty

The United States does not currently have a bilateral investment treaty (BIT) with Mexico or for that matter with any large Latin American country. In the Western Hemisphere, only Haiti, Grenada and Panama are signatories to BITs. BITs provide assurances of: (1) national treatment; (2) unrestricted capital and profit repatriation; (3) fair and equitable compensation in case of expropriation; and (4) binding third-party arbitration to resolve disputes. Mexico has long offered unrestricted capital and profit repatriation to investors and both binding arbitration and expropriation guarantees do not appear to be critical issues at this time. Thus, by ensuring national treatment, a U.S.-Mexico free trade agreement could obviate the need for a BIT.

Assessment

In summary, if a free trade agreement were to include the lifting of equity restrictions on all but a few industries, the elimination of distorting investment incentives and performance requirements, the establishment of an equitable dispute resolution mechanism, and a guarantee of national treatment, then the impact on investment would be substantial. It would be easy to predict that the rate of growth of foreign direct investment would rise from its current average of 15 percent to more than 20 percent per annum. If a free trade agreement were to provide foreign investors the same benefits throughout Mexico that they now receive in the Maquiladora zone, as well as liberalizing the value of each Maquila's output that can be sold abroad, then it is easy to predict that foreign investment would be much more evenly distributed across Mexico.

It is not easy to predict which industries would experience the highest rate of foreign capital infusion. It stands to reason that U.S. industries using large amounts of semi-skilled labor would find a Mexican production facility advantageous in meeting import competition from third countries. A number of U.S. firms in these labor-intensive sectors might even experience an infusion of capital from Mexican investors who have more experience in some of the mature industries such as ceramic tile, food products and steel bars.

Priority Issues

Congress should ensure that the positions established in the Uruguay Round on trade-related investment measures (TRIMs) and the bilateral investment treaties (BITs) are fully represented in a U.S.-Mexican free trade agreement. Mexico is a signatory to the Antidumping Code of the Tokyo Round Agreements but not the Subsidies Code. It is important that Mexico sign the Subsidy Code and then join in with the U.S. and Canada in a trinational panel to resolve disputes. The proposed Enterprise for the Americas Act provides incentives for investment policy reforms. If this Act becomes law, a free trade agreement incorporating the investment features outlined above would be much easier to achieve.

Intellectual Property

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The regulation of intellectual property and transfers of proprietary technology, including patents, copyrights, trade secrets, and trademarks, has long been a centerpiece of Mexico's national policy toward foreign investment. The possibility of a free trade agreement (FTA) with the United States arises just as there is substantial momentum in Mexico (and some progress already) toward liberalization of the rules governing the acquisition of foreign technology. Free trade negotiations could bring Mexico to expand its intellectual property protections even further, and to address those areas in which such protections are still inadequate, including patent and trademark safeguards.

Mexico's Intellectual Property Regime

Copyright protection is perhaps the most highly developed area of intellectual property protection in Mexico. Like the U.S., Mexico is a party to the Universal Copyright Convention, the Berne Convention, and the Buenos Aires Convention. Thus, works of U.S. authors meeting the requirements of these conventions are protected without the need to be registered in Mexico, although registration may still be advisable in many instances. Some protection also exists for disclosure of trade secrets and confidential information in breach of contractual provisions, although remedies in this area are less developed and are subject to problems of proof in Mexican courts. Mexico continues to have an unfortunate but well-deserved reputation for trademark piracy and inadequate protection for intellectual property generally.

Recognizing that adequate protection for intellectual property is critical to Mexico's future economic development, President Salinas de Gortari has sought from the outset of his administration to modernize Mexico's intellectual property regime. President Salinas is not the first Mexican president to express dissatisfaction with Mexico's technological development, although his approach to the problem is refreshingly new. Beginning with the administration of Luis Echeverria (1970-76), successive Mexican governments acted on concerns regarding the implications of importing foreign technology. Increasing mistrust of the U.S. and hostility to foreign ownership (including ownership of intellectual

property) interacted with Mexican nationalism to yield an unattractive climate for intellectual property.

The Mexican Transfer of Technology Law (TTL), originally enacted in 1972 and revised in 1982, was developed for the purpose of preventing what some Mexican nationalists viewed as technological imperialism by the developed countries. The TTL was designed to provide a means for the Mexican government to control the importation of technology into the country, reduce the cost and enhance the quality of technology imported, and protect Mexican companies from abuses and "unfair" competition from foreign firms. Like similar laws in some other Latin American countries, the TTL conceives of technology license agreements as a sale of the rights to the technology as opposed to more limited license rights to the use of technology.

For purposes of the TTL, the term *technology* refers to trademarks, service marks, patents, formulae, technical assistance, and know-how. The TTL requires contracting parties to register with Mexico's National Registry of Transfer of Technology (NRTT) any agreement which transfers technology to a Mexican party. The supply of technical assistance and technology, as well as the licensing of names, trademarks and service marks, qualifies as a transfer of technology subject to registration under the TTL. Any technology transfer agreement which is not registered with and approved by the NRTT is void and may not be enforced by a Mexican court. Violations of the TTL may result in criminal fines.

In practice, the TTL places the NRTT in the role of a third party bargaining agent between the technology supplier and the buying firm, and empowers the NRTT with almost unlimited discretion to decide whether a particular contract can be registered. Certain "objectionable clauses" specified in the law may be and have been used by the NRTT as grounds for nonregistration, including clauses calling for "excessive" royalty payments, or for a term longer than ten years. Other objectionable clauses specified in the TTL include contractual restrictions on the development of locally-produced technology or the export of goods produced under a technology license, and provisions requiring "grant-backs" of technological improvements to the foreign licensor, intervention in the management of licensees, limits on licensees' research and development efforts, prohibitions on the use of complementary technology, prohibitions on the use of confidential information beyond the term of the agreement, and limits on restrictive business practices.[1]

The nationalistic sentiment evident in the TTL was paralleled in the 1976 Intellectual Property Law (IPL), which actually decreased rather than enhanced protections available for patents and trademarks. The IPL reduced the duration of patent protection available, and abolished patent availability for inventions and processes in such key areas as chemicals, food, pharmaceuticals, metal alloy, antipollution, and the medical field. Criminal sanctions are available in theory for misappropriation of trade secrets, but have proven to be unavailable in practice. The IPL provides that exclusive rights to use a trademark are derived from

registration, a cumbersome and formalistic process in Mexico. Trademark registration lasts only five years, although renewal is available upon meeting evidentiary standards for proving continued use.

Not surprisingly, the protectionist characteristics of the ILP and TTL, coupled with the wholesale discretion afforded the NRTT under the terms of the TTL, have obstructed the flows of foreign technology and foreign investment into Mexico. Given the absence of meaningful safeguards accorded foreign technology under the TTL and the IPL, risk-conscious U.S. firms have understandably shied away from doing business in Mexico. Mexican companies have, in turn, suffered from a reduced capacity to obtain critical industrial know-how.

Mexico's Recent Liberalization of Intellectual Property Rules

To address the TTL's shortcomings, in January 1990 Mexico liberalized certain restrictions on technology transfer contained in the TTL. Under the new regulations, the government has returned to individual Mexican firms greater responsibility for decisions regarding the selection, negotiation and development of technology and trademark rights. The liberalized rules provide that even if otherwise "objectionable" clauses exist, the NRTT may register the agreement if the particular transfer agreement results in one of the following benefits to Mexico: generation of permanent jobs; technical training for Mexican workers; access for Mexican goods to foreign markets; manufacture of new products within Mexico, especially if they replace products that were previously imported; improvement of Mexico's foreign currency balance; reduction in unit production costs as calculated in constant pesos; development of Mexican suppliers of goods and services; use of technologies which do not harm the environment; or establishing or enhancing research and development efforts in Mexico. Companies are required to certify, but are not required to prove in advance of registration, that benefits will accrue during the three years following registration.

Although the new regulations did not repeal the TTL, they signify a notable departure from protectionist controls which have in the past discouraged U.S. and other foreign firms from licensing in Mexico. Perhaps most importantly, the new regulations limit the NRTT's discretion to some degree. The NRTT now may not deny the registration of an agreement unless the decision is based on established criteria in either the TTL or the new regulations. For example, the NRTT may not arbitrarily cancel the registration of an agreement, but may only effect cancellation after a Mexican court determines that a breach of the agreement has occurred. The NRTT is also no longer empowered to modify the term or duration of the negotiated agreement except as provided in the TTL or the new regulations. In contrast to former administrative practice of the NRTT, the parties may now negotiate any royalty rate on transferred technology that they desire. With respect to computer software, contracts between Mexican distributors and end users are no longer required to be registered, thereby

eliminating a significant administrative burden related to licensing software in Mexico.

In 1990 new intellectual property legislation was also proposed with the intention of bringing the level of Mexican protection into line with that found in industrialized countries. Unfortunately this legislation did not pass. The legislation is expected to be reintroduced in the Spring of 1991. Among the more important changes contemplated by the new law are a longer term for patents (20 years instead of 14 years), and broadening the areas available for patent protection (to include, for example, chemical, pharmaceutical, biotechnological and metal alloy products and processes). Mexico is also considering joining some of the major international conventions to which it is not yet a party, including the Patent Cooperation Treaty and possibly the "Madrid Arrangement" for registering trademarks in Europe. In addition, the legislation is expected to liberalize the rules concerning trademarks to lengthen the period of trademark protection from 5 to 10 years, and simplify both trademark registration procedures and prosecution procedures for trademark infringement actions. Instead of a formal "declaration" from the Trademark Bureau, for example, all that the new law would require in infringement actions is a simple opinion from the Trademark Bureau. Enhanced protection for trade secrets is also planned, but the details in this area have yet to be clarified.

Challenges Facing Free Trade Negotiations

The mixed record of the Salinas administration in achieving its program of intellectual property reform during 1990 (liberalization of the TTL regulations, but failure to pass the amendments to the IPL) illustrates the political and other challenges facing the Mexican government as it pursues its broader goal of an FTA. Clearly, a significant segment of Mexican opinion remains concerned about threats to Mexican ideas, culture, and control of technology perceived in true liberalization of Mexico's intellectual property regime. President Salinas faces other political challenges, including the need to increase employment levels within the Mexican labor force, a goal which may be at odds with technological improvement in certain industrial sectors.

Such concerns tend to obscure the deficiencies of the existing IPL, and to reinforce the basic concepts behind the TTL, namely government intervention in the bargaining process, registration of technology contracts, and above all the concept of permanently "transferring" technology as opposed to merely licensing its temporary use. Yet, as long as the IPL and TTL continue in their present form (despite the liberalized TTL regulations), the Mexican climate for protecting intellectual property will remain uncertain. Moreover, the failure to reform the ILP in 1990 raises the spectre that an FTA may have to contain a much greater intellectual property component than previously contemplated. To the extent that such provisions remain controversial in Mexico yet crucial from the U.S. perspective, the entire FTA could be threatened.

These conditions call for careful monitoring of the status of the proposed Mexican intellectual property legislation, which is expected to be reintroduced in the Spring of 1991. They also call for careful weighing of the costs and benefits to the overall FTA of specific additions to intellectual property protection. In addition, creativity in the negotiating process will be required. In order to alleviate concerns about decreased employment in certain industrial sectors of Mexico, for example, it may be necessary to reserve spheres of protection in certain sectors either entirely or for a period of time. This was necessary in the case of the U.S.-Canada FTA in order to assuage Canadian concerns regarding threats to the "cultural integrity" of locally-produced beer.

Nevertheless, enhanced intellectual property protection (whether it occurs through Mexican revision of the IPL or in the FTA process) is a prerequisite to a successful free trade area with Mexico. Effective bilateral efforts between U.S. and Mexico in the intellectual property area are even more urgent in light of the tremendous problems and apparent failure of Uruguay Round to include intellectual property protections to the multilateral trade structure of GATT.

Goals in the Intellectual Property Area

Broadly speaking, FTA negotiators should have six fundamental goals in the intellectual property area. First, the protections of the amended IPL discussed above should be sought, either through purely domestic legislation or (if necessary) the more difficult avenue of the FTA itself. Second, the TTL should be repealed, to remove the disincentives that the concepts of transferring technology, registering agreements, and continued bureaucratic discretion continue to place in the path of foreign investment in Mexico. In the absence of a comprehensive technology transfer regime, however, the government may continue its helpful role of promoting economic and technological development in Mexico. Third, legal protections for trade secrets and confidential information need to be more highly developed and mechanisms need to be put in place to assure the effectiveness of such protections. Fourth, prompt and effective injunctive relief for violations of intellectual property rights, which would allow U.S. investors to enforce intellectual property rights and remedies in Mexico, should be considered. Fifth, the FTA should take all possible steps to harmonize Mexican intellectual property laws with the laws of other industrialized countries (especially the U.S.). Finally, some thought should be given to including intellectual property disputes within the ambit of any dispute-resolution mechanisms established by the FTA, so as to reduce the possibility that such disputes would serve as a source of continued conflict between the two countries.

The prospects for free trade of technology between the U.S. and Mexico are favorable. High-tech industrial development is a sector of primary importance for future Mexican modernization. Mexico's need to export, and desire to integrate into the global economy, necessitates the permanent liberalization of intellectual property laws in Mexico to the benefit of U.S. suppliers. The advent of free trade with the United States arrives with the realization that Mexico may only

continue to increase exports by expanding its use of advanced technologies. By allowing free trade in technology in a climate which protects the U.S. supplier, Mexico may play an integral and even a leading part in the new global trend toward internationalization of production.

As Mexico shifts toward liberalized technology rules, the rapid pace of technological change will likely create new avenues for locally-owned Mexican firms to succeed. The opening of Mexico's economy is likewise in the interests of Mexican consumers, as newly-available technologies and lower prices may permit Mexicans more ready access to internationally-available goods and services. In sum, both the United States and Mexico could profit from free trade in technology permitted by an FTA.

ENDNOTE

[1] For an insightful discussion on the TTL, see Van Whiting, Jr., The Political Economy of Foreign Investment in Mexico: Nationalism, Liberalism, and Constraints on Choice, Chapter Five ("Technology Regimes, Patents, and Trademarks") (1991) (publication pending); Van Whiting, Jr., The Politics of Technology Transfer of Mexico, Research Report Series 37, Center for U.S.-Mexican Studies, University of California at San Diego (1984).

III. Contextual Issues

"Infrastructure: Water Supply, Transportation, Telecommunications," *David J. Molina and Steven L. Cobb, Co-Directors, Center for Inter-American Studies and Research, University of North Texas*

"Environment," *Clifton G. Metzner, Jr., Institute for Regional Studies of the Californias, San Diego State University*

"Labor," *Joseph A. McKinney, Department of Economics, Baylor University*

"Beyond Maquiladora Industries," *Abelardo Valdez, Washington, D. C.*

"Migration," *David J. Molina and Steven L. Cobb, Co-Director, Center for Inter-American Studies and Research, University of North Texas*

"Human Issues," *Andrew Kirby, Department of Geography, University of Arizona*

"Education," *Paul Ganster, Director, Institute for Regional Studies of the Californias, San Diego State University*

"Cultural Issues," *Robert F. O'Connor, Jr., Associate Director, Texas Committee for the Humanities*

"Legal Issues," *Rodolpho Sandoval, Division of Economics and Finance, University of Texas at San Antonio*

Infrastructure: Water Supply, Transportation, Telecommunications

David J. Molina and Steven L. Cobb

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The Texas-Mexico border stretches for over 800 miles, with a vast majority of trade passing through the four cities of El Paso, Laredo, McAllen, and Brownsville. Decreases in trade barriers and the rapid growth of the maquiladora industry in Mexico after 1982 have resulted in rapid increases in population and U.S.-Mexico trade during the 1980s. U.S.-Mexico trade grew from $42.2 billion in 1988 to $52 billion in 1989. Texas has been actively involved in this trend with an increase in exports to Mexico of over 45% from 1987 to 1988. This growth has forced these cities (and the entire border area) to reexamine their infrastructure development programs.

Further decreases in trade barriers between the two nations will lead to increases in trade that will benefit the entire nation while placing a greater burden on the infrastructure in an area that can least afford the necessary improvements. Despite the fact that the U.S. border communities appear to be prosperous relative to their Mexican counterparts, many of these communities rank among the poorest metropolitan areas in the entire U.S. This can be seen in an comparison of per capita income figures.

Per Capita Personal Income 1987				
El Paso MSA	Brownsville MSA	Laredo MSA	McAllen MSA	State of Texas
$9,484	$7,409	$7,035	$7,001	$13,888

Our examination will focus on transportation, water, and communications, dividing the border in three sections: the El Paso MSA,[1] the Middle Rio Grande Counties,[2] and the Border Region MSA.[3] The infrastructure needs of these areas are influenced by the amount of trade activity in the region and the population of the entire metropolitan area (including both sides of the border).

TRANSPORTATION

El Paso MSA is the largest and most active of the Texas border cities with a projected 1990 total metropolitan population of over 1.8 million (see Table 1). The level of trade-related economic activity is evidenced by the 42.7 million total persons crossing the border in 1989 (see Table 2). More critical for this analysis of the infrastructure is the increase in freight carrier crossings from 183,667 in 1988 to 258,750 in 1989 with a considerable portion of the activity being related to the thriving maquiladora sector in Ciudad Juarez which employs 135,000 workers in 309 plants.

Economic impact surveys have identified 25,306 U.S. supply and support operations serving maquila operations in Ciudad Juarez. These operations are located in 49 of the 50 United States. The products pass through El Paso by major interstate highway (I-10), class 1 rail lines connecting with the Southern Pacific and Santa Fe Railroads, and the El Paso International Airport (ranked 50th in the U.S. in passenger traffic). While access to the city is not a problem, congestion is a growing concern.

The level of activity at the border has led to the construction of a new bridge. This bridge will certainly help relieve some of the growing congestion, but local officials are already working to assure the construction of another bridge in an attempt to keep up with the growth in trade. The growth in trade has also taken its toll on the highway system in the region. As seen in Table 3, the emphasis on highway construction has resulted in the lowest per capita maintenance expenditures among the major border counties. The end result is one of the lowest pavement scores (71.08) of the counties considered.

The Middle Rio Grande Valley district contains two primary border crossings, Del Rio and Eagle Pass. These ports of entry had combined 1989 crossings of over 8 million people and 55,000 freight carriers. This is a relatively high level of activity for an area without a major interstate highway, but both ports are connected to the Southern Pacific rail line linking San Antonio to El Paso.

The impact of this activity can be seen in Table 3. Maverick County has the lowest pavement score and the highest per capita maintenance expenditures of the counties considered here. Val Verde is second only to Maverick in per capita maintenance expenditures and has a much higher per capita construction expense. These ports account for approximately 8% of northbound truck crossings and 12% of southbound rail crossings between Texas and Mexico (excluding El Paso). This seemingly small portion of the trade activity represents a substantial burden on these sparsely populated regions.

The Border MSA contains three major border towns or crossing points. These include Laredo (in Webb County), McAllen (in Hidalgo), and Brownsville

Table 1					
Population					
Location/Year	1970	1980	1990	2000	2010
City of El Paso	322,261	425,259	533,454	n/a	752,000
Remainder of County	37,030	54,640	73,329	n/a	188,000
Ciudad Juarez, Mex.	407,370	649,275	1,216,885	n/a	2,570,033
Total Metro	766,661	1,129,174	1,823,668	n/a	3,510,033
Laredo	69,024	96,453	135,000	167,700	n/a
Webb County	72,859	99,258	140,000	n/a	n/a
Nuevo Laredo, Mex.	151,253	203,286	245,203	270,336	n/a
Total Metro	224,112	302,544	385,203	n/a	n/a
Middle Rio Grande	94,461	125,077	148,475	191,957	n/a
Mexican Counties	96,594	142,625	196,700	246,180	n/a
Total Area	191,055	267,702	345,175	438,137	n/a
McAllen	37,636	65,480	89,103	n/a	n/a
Hidalgo	n/a	n/a	n/a	n/a	n/a
Reynosa, Mex.	150,786	211,412	255,188	281,3344	n/a
Total Metro	n/a	n/a	n/a	n/a	n/a
Brownsville	52,522	84,000	117,000	n/a	n/a
Cameron	140,368	209,727	294,884	360,334	n/a
Matomoros, Mex.	186,146	238,840	288,160	317,696	n/a
Total Metro	326,514	448,567	583,044	678,030	n/a

Table 2					
Border Crossings					
Location	Pedestrians	Freight Carriers	Passenger Carriers	Total Carriers	Total Persons
El Paso-northbound'88	7,890,999	183,667	15,259,590	15,443,257	41,203,458
Southbound '88	5,192,733	n/a	n/a	3,063,200	11,625,453
Del Rio -Total '88	77,540	16,850	1,169,674	1,186,524	2,533,855
Del Rio '89	80,975	18,137	1,242,941	1,261,078	2,691,151
Eagle Pass -Total '88	445,854	49,886	2,444,664	2,494,550	5,579,648
Eagle Pass '89	488,716	62,491	2,531,526	2,594,017	5,804,921
Laredo-Southbound'89	n/a	185,683	n/a	n/a	n/a
Northbound	n/a	172,149	n/a	n/a	n/a
Hidalgo Northbound	2,322,723	128,601	5,413,596	5,542,197	13,691,275

Table 3

Highway Activity for 1989

County	Lane Miles	Vehicles	Miles Traveled	Maintenance Expenditure	Construction Expenditure	Per capita Maintenance	Per capita Construction	Pavement Score[1]
El Paso	1,358	361,966	5,382,888	$5,588,737	$21,791,366	$10	$38	71.08
Val Verde	665	28,550	337,389	$1,288,631	$835,413	$34	$22	75.68
Maverick	451	20,065	327,716	$1,532,080	$212,846	$43	$6	62.40
Webb	885	79,809	982,208	$2,979,508	$3,290,635	$23	$25	89.38
Hidalgo	1,890	228,339	4,495,736	$6,354,125	$11,446,318	$17	$31	92.88
Cameron	1,493	153,287	3,047,942	$6,536,719	$19,172,078	$26	$76	91.50

Pavement score considers the following factors: pavement distress (rutting, cracking, patching, etc.), ride quality environment (rainfall and number of freeze/thaw cycles), traffic (number of cars and number/weight of trucks), and functional class (relative importance of a highway to the overall highway transportation network). High is 100 and anything under 35 is in need of immediate rehabilitation.

(in Cameron). All three appeared on the list of the 30 fastest growing metro areas in the U.S. during 1980-1988. This rapid population growth combined with the growth in U.S.-Mexico trade has placed a major strain on the region's infrastructure.

Laredo is the most active of these cities providing the major link between the state of Texas and the interior cities of Mexico. The 1990 population estimates for the total Laredo metropolitan area exceed 385,000. Laredo's location has combined with access by a major interstate highway (I-35), a class 1 railroad line (Union Pacific), and class 2 rail line (Texas-Mexico Railway Co.), the Laredo international airport, and the deep water port (150 miles east in Corpus Christi) to create a major congestion problem. Laredo receives 51.7% of northbound truck shipments into Texas (excluding El Paso) and 68.4% of rail car shipments to Mexico (again excluding El Paso).

This level of freight activity resulted in trucks crossing at an average rate of over 1000 a day in 1988. Crossings are expected to exceed 1300 per day in 1990. The pressure on the current bridges has resulted in the construction of two new bridges. Upon completion, the Columbia bridge northwest of Laredo and a second bridge south of Laredo will connect to new Mexican highways and provide easier freight access to Monterey and other interior cities.

The opening of the new bridges will help with the current congestion problem, but freight shipments are projected to increase over the next 10 years. The results of the projections by the Laredo Development Foundation provide an indication of the growing burden on the Laredo transportation infrastructure.

Daily Average Loaded Trade Shipments

Assumptions	1988	1990	1992	1996	2000
No change in growth factors	1060	1346	1666	2359	3051
1992 FTA between US & Mexico	1060	1346	1666	3064	4455

The impact on the highway system can be seen in Table 3. Webb County faces a relatively high per capita maintenance cost and has seen its pavement score drop from 95.97 in 1987 to 89.38 in 1989. The increased freight activity projected above will force increases in maintenance and construction expenditures to prevent the pavement quality from deteriorating further.

McAllen-Reynosa is the next metropolitan area of activity. While McAllen's population projections for 1990 are just under 90,000, the metro area encompasses closer to 400,000 people. Increased U.S.-Mexico trade and the need to supply the over 50 maquiladoras in Reynosa has increased the level of

activity at the Hidalgo border crossing. In 1989, over 128,000 freight carriers and an estimated 13.6 million people crossed the border.

The region is not served by a major interstate highway or a class 1 rail line, but handles 15.6% of northbound truck shipments entering Texas (excluding El Paso). This burden has forced extensive construction and maintenance activity to achieve the highest pavement score (92.88) in the region. The cost of this achievement is maintenance expenditures in Hidalgo County that exceeded those of the much larger El Paso County in 1989.

The lack of rail lines to Mexico and the potential for additional cutbacks in rail service to the county has resulted in increased activity at McAllen's Miller International Airport. In 1987, over 1000 tons of cargo and 146,000 passengers were enplaned. This is the highest level of cargo activity in the region.

Brownsville-Matamoros metro area is home to more than 678,000 people. The growth in population and trade mirror the other border MSA's and have placed a heavy burden on the region's infrastructure. Brownsville is port of entry for approximately 19% of northbound truck shipments and just over 20% of southbound rail shipments crossing the Texas-Mexico border (excluding El Paso). The major highway access and connection to Union Pacific and Southern Pacific rail lines have increased both trade flows and maintenance expenditures.

The burden of this activity was seen in the pavement scores of Cameron County which reached a low of 59.78 in 1984. These scores have been steadily increased to 91.50 in the last five years, but at a very high cost. Maintenance expenditures in 1989 of over $6.5 million were the highest in the region. Construction expenditures of over $19 million were just below El Paso County's total and twice as high on a per-capita basis.

Brownsville is the only major border crossing with a port. Waterborne foreign commerce through it totaled over 330,000 short tons in 1988. The area is also served by the Brownsville/South Padre Island airport.

The Texas-Mexico border is a region that is struggling to keep up with the growing demands of trade on its transportation infrastructure. A projection of Laredo's estimates of trade growth in the next decade to the entire border suggests that the need for new construction and the expense of maintenance will continue to grow throughout the region.

WATER AND SEWER

The ability of a region to meet the water and sewer treatment needs of its population is another critical aspect of infrastructure. The rapid growth of trade and population in the border region has resulted in substantial increases in the demand for treatment services in the last decade. The projections of continued

Table 4

Water and Sewer Usage '89-90

	Water in millions of gallons a day				Sewer in millions of gallons a day			
Location	Maximum Capacity	Average Daily Use	Peak Use	Use to Capacity Ratio	Maximum Capacity	Average Daily Use	Peak Use	Use to Capacity Ratio
El Paso	220	109.6	n/a	49.82%	67	64	n/a	95.52%
Middle Grande	49.6	22.4	n/a	45.16%	28.5	12.4	n/a	43.51%
Laredo	41	36.59	n/a	89.24%	17.4	12.6	n/a	72.41%
McAllen	35	20	29	57.14%	14	8.6	11	61.43%
Brownsville	20	16	27	80.00%	12.8	8	11	62.50%

Table 5				
Telephone Lines for 1989				
City	Residential	Business	Total Lines	Per/capita Lines
El Paso	141,073	55,300	196,373	37.31%
Laredo	7,679	2,005	9,684	37.77%
Eagle Pass	31,401	12,915	44,316	35.20%
McAllen	n/a	n/a	n/a	n/a
Brownsville	31,007	10,638	41,645	35.17%
Texas (1988)	n/a	n/a	6,303,206	37.43%

growth that may be augmented by the free trade agreement will place increased pressure on these systems. An examination of Table 4 demonstrates major differences in the ability of different areas to meet their needs.

El Paso seems rather comfortable in terms of water treatment with an average daily use that is 50% of system capacity. This also seems adequate to handle peak use periods that can be 50% higher than the average daily use. In terms of sewage treatment facilities, El Paso has far less excess capacity. The current average daily treatment is over 95% of system capacity. This need is currently being addressed by the replacement of an older plant treating 30 million gallons per day (mgd) with a new plant designed to treat 39 mgd in March 1991. This will provide additional capacity, but may still be inadequate to handle periods of peak demand.

The counties of the *Middle Rio Grand Valley* District seem to have adequate capacity to handle both the water and sewer needs of its population. The major concern is related to distribution. The reported figures for the region are the totals for all plants in the region. There is no assurance that growth will correspond with developed capacity, so coordination between the counties is critical.

Laredo is facing some serious problems in terms of water demand. The city is currently averaging daily use that is 89% of capacity. A study by Black & Veatch engineers predicts a need for the capacity to be increased to 58 mgd by the year 2000 and to 65 mgd by 2005. The city also needs to replace its old and inefficient Del Mar plant (20 mgd). The sewage system is operating at only 72% of capacity, but would also need to be expanded to handle the projected growth in demand.

McAllen is currently operating at about 60% capacity on a daily basis in both water and sewer facilities. The reported periods of peak use are closer to 80% of capacity. The system seems to be relatively comfortable, but continued population growth could result in a rapid decrease in excess capacity.

Brownsville's rapid growth has impacted its water and sewer use drastically, as observed in Table 4. Water use is 80% of capacity on average, but exceeded design capacity by 7 mgd during peak use. The system was able to meet this demand only by allowing the water to fall below the new EPA guidelines. These standards will be strictly enforced after 1992 and Brownsville is currently constructing an additional plant. This will provide for current needs, but future growth presents a continuing problem for both water and sewer systems.

As a whole the border region faces four sources of pressure on their water and sewer infrastructure. These include population growth, the need to replace outdated facilities, the need to meet the new standards imposed by the Texas Water Commission, Texas Health Department, and the EPA, and finally the need to serve the *colonias* and other groups of residents that are currently outside the

system. The current estimate of $80 million to construct a water plant with a capacity of 20 mgd suggests that the cost of meeting this growth in water and sewer demand will be very high.

COMMUNICATIONS

The area of border infrastructure that is the most difficult to assess is related to communications. The nonexclusive nature of television and radio broadcasts prevent discussions of utilization rates or capacity. In this respect, it is difficult to discuss the need for additional communication outlets, but one would expect that the projections of increased population growth will lead to applications to the FCC for new outlets. As the U.S. and Mexico increase their economic ties, it would also be expected that many of these requests would be multicultural in nature.

An aspect of the communication infrastructure that is more closely related to business activity is telephone lines. As seen in Table 5, the border has kept pace with the rest of the state in per capita telephone lines. The rapid growth of the border population has not resulted in a shortage of telephone lines relative to the state average.

FINAL REMARKS

The Texas border provides the primary highway and rail access to Mexico for all states east of the Rocky Mountains. This places a great strain on the infrastructure of some of the poorest counties in the nation. Additional trade brought about by the FTA will result in even further strain on the Texas border communities.

The benefits of U.S.-Mexico trade extend far beyond the border while much of the burden is concentrated in these Texas border counties. There is a need for a system that will redistribute this burden more equitably. This system could include the designation of a portion of bridge crossing revenue for infrastructure development or the establishment of infrastructure development grants for the local communities.

Any system to redistribute the burden more equitably will require a coordinated effort to meet the individual and joint needs in the region. A first step towards this goal is to centralize information such as that presented in this report. At present, this data can only be obtained by contacting individual cities, counties, and private groups in the region. The Texas Water Development Board and the Texas Department of Commerce are in the process of collecting some of the necessary information. However, neither cover all of the pertinent information needed to coordinate the system described above.

End Notes

1 The El Paso MSA encompasses the entirety of El Paso county.

2 The Middle Rio Grande Valley includes the counties of: Dimmit, Edwards, Kinney, La Salle, Maverick, Real, Uvalde, Val Verde, Zavala.

3 The Border Region MSA is comprised of the Laredo MSA, McAllen-Edinburg-Mission MSA, and the Borwnsville-Harlingen MSA.

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Environment: The Border Region and U.S.-Mexican Free Trade

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I. Executive Summary

Cooperation between the United States and Mexico for the protection of the environment along the border region will enhance trade and commerce between the two countries.

The U.S.-Mexican Border Environmental agreement signed by the presidents of the two countries in 1983 is the hallmark of serious cooperative efforts to improve environmental problems on both sides of the border and has led to successful projects in the areas of water quality improvement, air pollution abatement and hazardous waste reduction. The free trade agreement will generate increased economic activity in the border region, with accompanying environmental impacts. The two countries must work together to avoid and ameliorate environmental impacts growing out of the free trade agreement.

II. Assumptions

There are many crucial border environmental issues facing both countries. These problems include pollution of the Tijuana and New River which flow from Mexico into the San Diego and Imperial Valley areas of California; air pollution from copper smelters in Arizona and Sonora; auto and industrial air pollution in El Paso and Ciudad Juárez; pollution of the Rio Grande River and transboundary aquifers between the states of Texas and Chihuahua; and industrial hazardous waste generated by the foreign owned maquiladora industry and domestic firms in Mexican border cities, as well as the dumping of industrial waste from the U.S.

In some cases border environmental problems have been successfully solved through negotiation between authorities and technical experts under the auspices of the Border Environmental Agreement. There seems to be no lack of commitment by both countries but a severe lack of joint funds.. With the enhancement of free trade and commerce between the U.S. and Mexico, additional state, federal and private funds could be made available toward the

environmental needs which, in turn, will strengthen trade relations by establishing systems for appropriate hazardous waste disposal, reducing air pollution between sister cities and improving water quality and the reclamation of wastewaters to be used for agricultural irrigation and industrial uses.

III. Advantages

More attention given to the environmental issues along the border by both countries could generate a full commitment on both sides for additional funds to solve these problems. A recent example of joint commitment is the agreement to build an international sewage treatment plant on the Tijuana/San Diego border to halt the flow of raw sewage into San Diego and to establish a reclamation process so a part of these flows could be directed for vital uses in the region. This additional water can only help the industrial and agriculture sectors in both countries and stimulate commerce. The same holds true in the areas of high concentration of maquiladoras such as Tijuana, Mexicali, and Ciudad Juárez for the development of a system for hazardous waste disposal generated by the maquiladora industry. New methods and techniques of transportation and the disposal of hazardous wastes, as well as cooperation in enforcement of regulations for disposal, will create a more sanguine atmosphere for establishment of profitable maquilas and other cooperative industry. Another advantage would derive from joint efforts to reduce marine pollution from San Diego and Los Angeles areas--this would also have a positive effect on commercial and sports fishing in the coastal regions off of Southern California and Baja California.

In the area of air pollution, efforts to control sulfur dioxide emissions from copper smelters in Sonora and Arizona, and in the El Paso area, have promoted the copper industry in Mexico and the United States and in the process have met the clean air regulations of both countries. Finally, an agreement between the two countries in the regulation of groundwater uses from transboundary aquifers would have a lasting positive effect on the irrigation of agriculture products, particularly along the Rio Grande delta areas.

IV. Disadvantages

Naturally the expansion of bilateral trade will increase border demographic problems by bringing in more people and industry and inducing an increased strain on the environment. If sufficient funds are lacking for the needed environmental projects, such as wastewater treatment plants and reclamation facilities, hazardous waste disposal by recycling and creation of disposal sites and development of an infrastructure for abatement of air pollution, severe environmental impacts will result, affecting population, health, economy, and commerce. Another major problem would arise in the border desert regions with the increase of population and growth of the cities, i.e., the provision of adequate

water supplies. Water will be needed for residential uses as well as municipal uses for parks and green ways and for industrial uses and irrigation of agricultural products. The Colorado River, which supplies the Imperial Valley and Mexicali valley, in addition to Southern California and the northern Baja regions, is now fully allotted. Transborder aquifers are drying up and the use of the Rio Grande is at capacity. There is no additional water available--conservation and reclamation are the only answers. Without water there is no possibility of border growth.

V. Assessments and Prospects

Environmental factors along the U.S.-Mexican border will play an important if not critical role in the success of free trade development between the United States and Mexico. There must be a strong commitment by both sides to identify and find solutions to the environmental problems stated above which will require creative negotiations and money.

In addition, the water supply and water quality is a major, if not the essential, issue for successful growth along the border. These issues must be addressed by first using the expertise of the International Boundary and Water Commission for water issues, and the expertise of the EPA and SEDUE, as well as input from academic institutions that have worked with these projects for many years.

VI. Critical Factors

The preservation of our environment on this planet is foremost in the minds of almost everyone today as we see our world disintegrating around us--pollution of our waters, air and soil threaten the planet at large. There is now, more than ever, need for cooperation among countries to understand these problems and to mount programs to solve them before it is too late. In many cases, as we know, especially involving endangered species, animals and plants, it is already too late. If we are to create a safe border environmental region that will accommodate the necessary growth for free trade success, both countries must commit the manpower and funds over a long period and plan together. This could be accomplished with the Border Environmental Agreement, as well as the creation of an international border environmental review board or committee with power to get things done and with adequate money and facilities.

VII. Priority Issues

Explosive growth on both sides of the border, propelled by a U.S.-Mexican free trade agreement, will severely tax the water systems and add to air and soil pollution problems. Growth must be planned along with the installation of environmental projects to reduce pollution, and to prevent transborder negative environmental impacts. The following are priority issues to attain the goals.

- Surface waters in the border region are already allocated to users on both sides of the border. There is no more water. Conservation and reclamation programs will be the only way to expand water use.

- Groundwater supplies are being depleted at a rapid rate and must be regulated and replaced.

- The growth of the manufacturing and maquiladora industry along the border, which already has added 1,800 plants and 450,000 workers, is creating an industrial waste problem and has increased hazardous waste pollution in the border region. The U.S. and Mexican regulations for disposal of hazardous waste are strong, but enforcement, particularly on the Mexican side, is lacking and hazardous wastes are building up and being disposed of in illegal sites and into the rivers and streams, thus affecting both sides of the border.

An adequate system of waste management and disposal must be initiated with the cooperation of both countries acting together. This must be accomplished before additional manufacturing and industry are installed.

- With rapid increase of the number of vehicles in the border area as well as industrial growth, air pollution has become a major problem particularly in the El Paso/Ciudad Juarez and Tijuana/San Diego areas. The latter is growing worse because of the transportation of polluted air south from Los Angeles. A major priority is to develop a cooperative system to combat the air pollution problem and have all autos and trucks when traveling across the border meet strict emission standards.

- Finally, a joint environmental planning board should be established with experts and authorities from both countries to carry out the Border Environmental Agreement and its annexes. The Board should be in a position to work with U.S. and Mexican governments, as well as state, municipal, and private agencies and academic institutions to solve these environmental issues and be equipped with the funds to follow up.

Labor Issues in a United States - Mexico Free Trade Agreement

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I. Executive Summary

Because of the different levels of economic development between the United States and Mexico, the effects on labor of the free trade agreement between the two countries are likely to be greater than those of the United States-Canada free trade agreement. That there will be adjustment costs is undeniable. However, these adjustment costs can be minimized through gradually removing trade barriers, and can be alleviated through trade adjustment assistance to the workers, communities and industries affected. There is potential for the wage structure of the United States to improve as a result of the agreement, with lower- wage jobs being replaced with those more appropriate to an industrially and technologically advanced country. However, income redistribution measures may be necessary to assure that the benefits of free trade are spread throughout society.

II. Assumptions

The major assumption of this analysis is that the United States-Mexico trade agreement will be similar to the United States-Canada agreement. This will mean complete, but gradual, removal of all import tariffs, and removal of many nontariff barriers to trade. There will be at least a fifty percent rule of origin requirement as in the United States-Canada free trade agreement, and some liberalization of regulations on investment and services trade. Since only a free trade area and not a common market is being proposed, labor migration is assumed to be liberalized only to the extent that it was in the United States-Canada agreement, i. e., limited mobility for white collar workers. A further assumption is that, given time for adjustment, the *composition* of employment in the United States will be affected by the agreement, but not the overall *level* of employment.

III. Advantages of a Free Trade Agreement

The benefits of unrestricted international trade accrue to both producers and consumers. The possibility of increasing total output and total income through international specialization has been widely recognized since the time of Adam Smith in the eighteenth century. Through international trade each country can produce those goods that it is best suited to produce, and by the improved efficiency of resource allocation incomes rise and the citizens of all countries benefit.

Indeed, the international specialization may occur within industries. That is, a manufactured product may have certain parts of the production process which depend heavily upon the work of scientists using the most modern technology and capital equipment, whereas other parts require only unskilled or semi-skilled labor for their production or assembly. Unrestricted international trade provides the opportunity for a capital abundant and technologically advanced country such as the United States to specialize in the more complicated parts of the production process, while at the same time farming out the more labor intensive portions to labor abundant countries such as Mexico. Studies have confirmed that such specialization increases the international competitiveness of U.S. firms, and that it often prevents transplantation of the entire production process to more labor abundant countries. Higher-wage jobs are thus preserved or expanded in the United States.

Free trade with Mexico will provide increased export opportunities for many United States firms. About seventy percent of Mexico's international trade is with the United States, and economic linkages between the two countries are strong. Mexico is projected to have a population of around one hundred million people by the turn of the century. Economic reforms in Mexico have already caused an increase in the economic growth rate, and prospects for the future are excellent, particularly if a free trade agreement is signed with the United States. A doubling of real national income in Mexico within the next ten years is possible.

A Mexico in which incomes are rising rapidly will create a strong demand for goods produced in the United States, providing new job opportunities in export industries. Elsewhere in this report Perryman Consultants predict increased sales in Mexico of $1.5 billion per year of telecommunications equipment as this Mexican industry is privatized, modernized, and trade barriers are removed. Increased exports of such equipment should generate an estimated 4,400 jobs in the state of Texas alone. Prospects are excellent for other manufactured goods produced in the border states, such as oil and gas field machinery and equipment, computer systems and peripherals, medical instruments and equipment, and computer software and services. In addition, the market for certain agricultural products and processed foods produced in the border states will rapidly expand, providing job opportunities in these industries.

Increased trade between the United States and Mexico should provide a special stimulus to economic activity along the border. Certain U.S. and foreign

firms will move their operations to the border region, some to the north of the border and some to the south, to be better positioned logistically to take advantage of the unified market. The increased flow of goods through the border areas will further stimulate the border economy as more people find employment in the transportation and distribution industries.

The counties of Texas within 50 miles of the border are among the nation's poorest. Per capita incomes are only a fraction of what they are in the country at large, and unemployment rates are much higher. Social indicators such as per capita transfer payments and school dropout rates point to a region that is economically depressed. The increased economic activity in this region resulting from a free trade agreement will help to remedy this regional imbalance in living standards by increasing job opportunities and raising wage rates in the borderlands.

An often overlooked benefit of unrestricted international trade is that the real incomes of workers are increased by the lower cost of imported goods. Studies have repeatedly demonstrated that the costs to consumers of international trade barriers often amount to $100,000 or more per year for each job preserved in the protected industry. The cost of trade restrictions to the average family is several hundred dollars per year. The burden of such trade restrictions falls most heavily upon the lower income segment of the population who can afford it least. Trade restrictions impose a regressive tax of the worst sort. This is especially so for labor intensive products such as clothing and apparel, shoes, gloves, and food products of the type in which Mexico has a comparative advantage.

IV. Possible Problems Arising from a Free Trade Agreement

Serious questions have been raised concerning possible adverse effects of a United States-Mexico free trade agreement upon labor in the United States. Some contend that industries in the United States cannot hope to compete with firms in Mexico which pay wages only a small fraction of the average manufacturing wage in the United States. But this is by no means true for U.S. industries in general. The difference in wage rates between the United States and Mexico reflects a proportional difference in labor productivity. Unit labor costs may be just as great, or greater, for Mexican firms paying the low wage rate as for U.S. firms paying a wage several times as great. The higher hourly wage cost of the U.S. worker may well be offset by higher productivity resulting from the larger capital stock and more advanced technology of the United States. Of course Mexico will have a cost advantage in some industries, and the United States will have a cost advantage in other industries. These comparative cost differences provide the basis for mutually beneficial trade.

One of the major international trade theories, the factor proportions theory, does predict that unrestricted trade between the United States and Mexico would cause the average wage for unskilled and semi-skilled workers in the United

States to fall (or cause unemployment if the wage does not fall). However, this theory is based upon many restrictive assumptions which make it of limited relevance. For example, it is a static model which rules out technological advances, capital accumulation, upgrading of the labor force, and other sources of economic growth.

Even the factor proportions theory tells us that free trade provides the potential for everyone to be better off if income is redistributed. That is, the earnings of capital owners and skilled workers will increase by more than enough to restore the possible lost earnings of unskilled workers and semi-skilled workers with a surplus left over. A logical way of carrying out such an income redistribution, if it were deemed necessary, would be through reducing the payroll tax on lower income workers while making up the lost revenues through taxes on higher income workers.

Recent developments in the theory of international trade have pointed to reasons for trade other than a country's supplies of capital and labor. Much of international trade today is based upon economies of large scale production, differences in technology between countries, and product differentiation. To the extent that trade is so explained, there is no basis in international trade theory for fearing that wages in the United States will fall as a result of free trade with Mexico. In addition, dynamic benefits of free trade can, through stimulating economic growth, enable everyone to gain. These dynamic benefits include the improved efficiency brought about by greater competition from abroad, and improved investment decisions as risk is reduced by having a codified commitment to free trade.

A matter of more serious concern than the unlikely lowering of U.S. wages from free trade is the certainty that free trade will require resources to move out of contracting industries to find employment in expanding industries. Such economic adjustment does involve costs. Workers may suffer periods of unemployment, incur the costs of moving to a new location, or have to retrain for a new job.

Economic analysis has confirmed what common sense tells us, that adjustment costs are much lower if the adjustment takes place gradually. The gradual removal of protection allows time for depreciation of capital equipment, for normal attrition of the work force of an industry, and for workers in the affected industry to search for, or be trained for, other jobs.

While gradual removal of trade barriers greatly reduces adjustment costs, it does not always eliminate them entirely. In cases where communities are heavily dependent upon a particular industry, and where job prospects in expanding industries are poor, then there is a need for trade adjustment assistance. For reasons too involved to be discussed here, trade adjustment assistance may be justified because of its positive effect on economic efficiency. More importantly, it is justified by concern for equity. Imposing costs on some members of society in order to bring about changes which benefit society is

unfair, particularly when those harmed may be at the lower end of the income scale.

Both international trade theory and empirical studies indicate that the benefits of reducing trade barriers will more than cover the cost of funding such trade adjustment assistance. An important point to remember in this regard is that the benefits of trade liberalization recur into an indefinite future, while adjustment costs are mainly incurred within a year or two.

Finally, concern has been expressed that the costs imposed on firms in the United States by social programs, such as unemployment insurance or laws regulating hours and working conditions, if they are not matched by similar programs in Mexico, will cause firms in the United States to be unable to compete. However, policies which increase business costs across the board bring about a compensating change in the exchange rate. So long as the value of the peso relative to the dollar is determined by market forces, divergent social policies need not raise concerns about the competitiveness of United States firms or their being lured to Mexico because of these policy differences.

V. Assessments and Prospects

A free trade agreement between the United States and Mexico will be beneficial to the United States in many ways, and will provide the opportunity for all segments of society, including labor, to benefit. Labor conditions in the border region especially should improve from increased activity there. In addition, the expected improvement in economic conditions and job opportunities in Mexico resulting from the free trade agreement can reasonably be expected to reduce the pressures for illegal immigration into the United States. This also will work to the advantage of labor in the United States, particularly in the border regions.

For the country at large, we can expect that the composition of employment in the United States will change as a result of the free trade agreement, but there should be no long run reduction in the level of employment. This is because exports to Mexico can be expected to increase by at least as much as imports from Mexico increase. As Mexican economic reforms and trade liberalization cause incomes to rise in Mexico, demand for products produced in the United States will increase significantly. Such industries as pharmaceuticals, telecommunications equipment, automobiles, electrical machinery, transportation and construction equipment, household appliances, wheat and corn, and processed foods are among those which can expect to increase their sales in Mexico and to hire additional workers accordingly.

Other industries in the United States can reasonably expect to lose market share to Mexican producers as trade barriers are eliminated by the free trade agreement. Some of these are textiles and apparel, leather goods, ceramic products, automobile parts, consumer electronics, some steel products, cement, sugar, and fresh fruits and vegetables. In a growing market, the fact that such

industries will lose market share to Mexican producers does not necessarily mean that they will have to reduce their labor force. These industries may simply stop adding to their labor force, or add to it at a slower rate than before.

In cases where industries are forced to lay off workers due to increased competition, trade adjustment assistance should be available to ease the adjustment. This can be in the form of extended unemployment benefits, retraining programs, wage subsidies during times of training for new employment, formal retraining programs, job search assistance, and moving expenses for those moving to a different part of the country to take advantage of job opportunities. Communities adversely affected by plant closings can receive assistance in attracting new industry.

Given the fact that United States trade barriers on Mexican products are already relatively low, the economic displacement from a movement to free trade should not be great. However, a well developed and well implemented program of trade adjustment assistance is important on equity grounds, and also as a psychological safety net for workers in the United States, even if its use is not required very often. The case is much stronger for trade adjustment assistance to workers than to firms since firms can more easily shift to alternative activities, particularly if the staging in of trade liberalization measures is gradual enough to allow for depreciation of capital equipment.

The free trade agreement provisions of the General Agreement on Tariffs and Trade do not require total elimination of trade barriers, but only that "substantially all" of trade will be liberalized. While this phrase has not been formally defined, the consensus opinion is that certain industries may be exempted from the provisions of a free trade agreement, as was the case for cultural industries and the transportation sector in the U.S.-Canada agreement. If certain industries in the United States are so sensitive politically as to prevent their inclusion in the free trade agreement, some exemptions are possible. By exempting industries, however, we would forfeit some of the benefits of the free trade agreement.

Furthermore, industries which are adjusting to import competition can be protected from unexpected import surges by the safeguard provisions of our trade laws. Such protection is temporary, as it should be, but it provides an opportunity to avoid unexpected economic dislocation. Care must be taken that the safeguard provisions are not abused, however, for much of the benefit of the free trade agreement will arise from the more certain and risk-free environment within which trade takes place as freedom of trade is codified.

Those industries which can be expected to face the greatest import competition from Mexican firms are labor intensive industries which pay a only a small fraction of the average U.S. manufacturing wage. The wage structure of the United States could be improved by facilitating the gradual transition of the workers of these industries into higher wage industries more appropriate to an industrially and technologically advanced economy such as the United States.

VI. Critical Factors

A most critical factor for the successful negotiation of a United States-Mexico free trade agreement will be assurance from the nation's leaders that the benefits of free trade will not be attained at the expense of some particular group, such as labor. Free trade with Mexico will provide the potential for the nation as a whole to benefit without undue cost to any one group if judicious policies are followed. Without such assurances and effective programs in place to provide a psychological safety net for those who perceive that they might lose from free trade with Mexico, political opposition may be so great as to deny the negotiators the fast track authorization needed to reach an agreement, or to approve it once it is negotiated.

VII. Priority Issues

The issues of concern to labor in the United States from a free trade agreement with Mexico are those which arise in any dynamic economy, whether adjustment is required because of import competition, technological change, shifts in demand from one product to another, or changes in other variables. What is critically important is that the economy remain flexible and adaptable to change in a dynamic environment without leaving some on the sidelines unable to benefit from the change. The debate over the free trade agreement may provide an opportunity for reassessing the adequacy of our institutions and policies in providing the labor skills which our population needs in order to be mobile among occupations and to find employment in industries in which the United States does have a comparative advantage.

In particular there should be a reevaluation of the trade adjustment assistance measures of the United States, taking advantage of the most recent work on this subject both in this country and abroad. For long run competitiveness and flexibility of the economy, deeply rooted problems with the educational system of the country need to be addressed. In addition, monetary and fiscal balance must be maintained to prevent disruptive movements in exchange rates from putting our producers at a disadvantage.

Specific issues which should be monitored or clarified during the negotiations are:

- the timetable of scheduled tariff reductions, to be sure that it allows reductions of trade barriers to be staged in gradually enough to provide time for economic adjustment;

- the rule of origin requirement, to be sure that it is sufficient to

prevent other countries from subverting United States trade regulations by shipping goods through Mexico;

- the safeguard provisions, to be sure that temporary protection is available to protect against unanticipated import surges which would cause inordinate adjustment costs;

- Mexican exchange rate policy, to ensure that the value of the peso will not be manipulated to artificially protect Mexican producers and boost Mexican exports.

Beyond the Maquiladora: Making Full Co-Production a Centerpiece of the Free Trade Negotiations

Abelardo Valdez

I. Executive Summary

In order to maximize their comparative advantages and ensure mutual economic benefit, the United States and Mexico should make co-production ventures, which utilize both U.S. and Mexico labor and capital, the centerpiece of the free trade negotiations. Since 1965, the maquiladora industry, a limited form of co-production operating primarily in the U.S.-Mexico borderlands, has provided significant benefits to both countries in producing more competitive products.

Building on this experience, the two countries should structure free trade incentives to foster the creation of a full co-production partnership that will optimize the utilization of U.S. and Mexican labor and capital. This would be accomplished by providing immediate and complete free trade treatment for products of co-production ventures. Companies not using co-production ventures would be granted free trade benefits through a gradual reduction of tariffs over a period of ten years or more. The expansion of co-production ventures would be encouraged while companies would retain their freedom to decide which option under the free trade agreement would result in the maximum benefit.

While co-production ventures could operate anywhere in the United States and Mexico, the borderlands of both countries offer significant advantages to maximize the mutual benefits from co-production. These include geographical proximity, a common business culture, a successful experience with the maquiladora industry, and a strong commitment to cooperation through free trade.

II. Assumptions

- The mutual benefit derived by the U.S. and Mexico from the maquiladora program over 25 years is a solid foundation for building a full economic partnership between the two countries in the production and marketing of goods and services in their markets and those of other countries' markets.

- Bridging the economic and industrial development gap between Mexico and the U.S. requires a non-traditional approach to free trade in order to assure mutual benefit and a successful and lasting

free trade agreement. Structuring the free trade agreement to encourage co-production would be such an approach.

- Co-production ventures are the best way to combine the comparative advantages of Mexico and U.S. in the production and marketing of goods and services.

- The objective of a free trade agreement should be to increase overall economic opportunity, create jobs, and improve living standards in both countries rather than to provide advantages to particular companies or sectors of the economy.

- U.S. labor will demand that U.S. jobs not be lost as a result of the free trade agreement.

- Co-production ventures will help to make the United States and Mexico more competitive in international trade.

III. Advantages of Expanding Co-Production under the Free Trade Agreement

- An advantage of full co-production would be that the full range of comparative advantages and mutual economic benefits would be maximized, by combining the best resources of both nations in the marketing and production of goods and services.

- A second advantage would be that the economic dislocation resulting from a free trade agreement would be reduced because companies from both countries would seek to cooperate with each other rather than to eliminate each other.

- A third advantage is that U.S. and Mexican cultural and linguistic assets would make for more effective marketing of co-produced articles in the international market.

- A fourth advantage would be that greater support for the free trade agreement could be obtained if labor and industries presently opposed to it recognized that co-production provided greater opportunities to increase their jobs and profits than a traditional approach to free trade.

IV. Disadvantages

- The main disadvantage of co-production is that it requires the private sector to be more forward looking and to take additional initiatives to form co-production ventures in order to maximize the benefits from the free trade agreement.

- The second disadvantage is that standards would have to be established for eligible companies to qualify as co-production ventures that utilize capital and labor from both nations. However, this would be offset by the reduction of economic dislocation resulting form co-production ventures.

- The third disadvantage is that different free trade incentives would be provided to those companies that form co-production ventures and those that choose not to do so. However, each company or enterprise would have complete freedom to decide which set of incentives to obtain for its operations.

V. Prospects for Expanding Co-Production

Neither the U.S. nor Mexico appear to have given serious consideration to expanding co-production beyond the maquiladora through the incentives of free trade. In the brief time before the negotiations actually begin, both governments will have to analyze and evaluate the potential benefits of doing so and determine how to structure free trade incentives to accomplish this goal.

By giving co-production ventures immediate free trade treatment upon the execution of the free trade agreement, as opposed to a gradual reduction of tariffs throughout a period of ten or more years, Mexico and the United States would encourage the expansion of co-production systems. This can be accomplished, consistent with free enterprise principles, by giving entrepreneurs the choice of which option to pursue without mandating requirements to form co-production ventures.

If co-production ventures are made an initial part of the free trade negotiations, the effects of economic dislocation could be substantially reduced for both countries while at the same time maximizing the benefits of free trade for both of them. This would result in greater support for labor and industries presently opposed to the free trade agreement.

VI. Critical Factors

For co-production to become an integral part of the free trade negotiations it would be necessary for businesses from both sides of the border to think of free trade in a different way than before. It would require companies to find ways to cooperate to produce and market goods and services more competitively rather than just competing with each other. The U.S. and Mexican governments would also have to modify their traditional notions of a free trade agreement in order to develop an arrangement that would provide even greater benefits to both nations.

VII. Priorities

The United States and Mexico need to create a new concept of cooperative free trade that will yield greater and mutual economic benefits than a traditional free trade agreement. Research on the possibilities and benefits of co-production ventures needs to be done by both countries, and consideration should be given as to how to structure the free trade incentives in the free trade agreement to encourage the development of co-production ventures. Moreover, the two governments need to find ways to encourage co-production ventures to export products and services not only to each other's markets but also to the international market.

The Impact of a U.S.-Mexico FTA on Migration

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I. Executive Summary

The increasing interdependence between the U.S. and Mexico has resulted in the opening of negotiations toward a Free Trade Agreement. According to Salvatore (1990) a *Free Trade Area (or Agreement)* is a form of economic integration wherein all barriers on trade among participating nations are removed, but each nation retains its own barriers on trade with nonmembers. This must be distinguished from a *Common Market* which goes beyond free trade by also allowing the free movement of labor and capital among member nations. While a free trade agreement between the U.S. and Mexico would not include a provision for the free movement of labor[1] from one nation to another, trade liberalization would have an impact on migration.

This analysis of the impact of FTA on migration will begin with a discussion of the determinants of migration. The second section provides a perspective on immigration policy. The third section describes the major forms of international migration. The fourth section analyzes the potential impacts of increased trade on migration. The final section presents some future policy options.

II. Determinants of Migration

Economists generally view migration as an investment of human capital. Emigrants from Mexico to the U.S. tend to be motivated by greater economic opportunities available in the U.S. During the past 25 years these two countries have disagreed on the primary cause of Mexican migration to the U.S. The U.S. has pointed to *push-factors* while Mexico has consistently placed the blame on *pull-factors* (Bilateral Commission report 1989). The cause lies somewhere between the two extremes.

Push-factors are viewed by the U.S. as the primary cause of Mexican migration. The protectionist policies that the Mexican industry has pursued

during the past 25 years have led to a deterioration of local and international opportunities for Mexican products which resulted in high rates of unemployment, underemployment, and inflation. In addition, the relatively low cost of undocumented migration from Mexico to the U.S. (as a result of nearly two thousand miles of adjacent border) has created an attractive alternative to the increasingly restrictive U.S. immigration policies of the 1960s through 1980s IRCA. Overall, as the "crisis economica" deepened, the migration of Mexicans to the U.S. has increased.

Pull-factor proponents argue that the lack of an adequate supply of labor in certain sectors of the U.S. economy (e.g., agriculture), higher real wages, and better fringe benefits lead to income opportunities that compensate for the cost of migration to the U.S. for a large number of Mexicans. These proponents argued that unless employee sanctions were implemented (through IRCA), the number of undocumented migrants would continue to rise.

The Bilateral Commission Report (1989), cited the cause of migration as combination of these two factors. However, the attitude that each country has towards these causes is reflected in each country's policy towards migration. Immigration policy can be approached in two ways: at the border or through increased employment opportunities in the source country (Lande & Crigler, 1989). The U.S. has generally taken the position that immigration policy is a unilateral matter and sovereign right (Bilateral Commission). This has led to an emphasis on stopping undocumented immigrants at the border. Mexicans have tended to view immigration as a bilateral process requiring a bilateral policy. Consequently, the two countries' views are in conflict.

III. Immigration Policy

The immigration policies of both countries have been inconsistent over time. During World War II the U.S. acceded to Mexico's exacting requirements to contract Mexican labor (including round trip rail tickets, monetary compensation for lost labor, and the participation exclusion of Texas). However, by the mid-1960's the U.S. discontinued the formal migrant worker agreement known as the Bracero program. Mexico responded by developing the Border Industrialization Program in an attempt to stop the expected crisis associated with the returning unemployed braceros. A closer review of the respective countries' immigration policies will reveal the inconsistencies.

Prior to the 1970s, the Mexican government desired and arrived at bilateral agreements on Mexican migration to the U.S. The unilateral decision by the U.S. to end the Bracero program led Mexican presidents to doubt the viability of a bilateral agreement. Consequently Luis Echeverria made immigration an internal national issue and refused to sign a new Bracero program with President Ford. Instead, Echeverria initiated PIDER (Public Investment Programs for Rural Development). PIDER was intended to "invest" money in areas with a high

migration propensity in order to improve local economies and lower the propensity to migrate (Tamayo and Lozano 1990).

During the Lopez Portillo administration, research demonstrated that migrants are not necessarily the least advantaged members of the labor force. Various community studies have shown that it is not the poorest households or communities with the lowest employment prospects which provide the migrants to the U.S.[2] These realizations led Lopez Portillo to use PIDER for overall economic development and not to target poor rural areas with high migration propensity. While Lopez Portillo refused to discuss migration as bilateral issue, he emphasized the need to guarantee the human rights of undocumented Mexican workers in the U.S. During the De La Madrid administration, a set of hearings by the Mexican Senate concluded that the causes of migration were bilateral in nature and consequently recommended a bilateral policy approach. The administration of Carlos Salinas continues to view development as a way of controlling migration. He has met with President Bush on several occasions and has discussed migration policies. Mexican governments with the exception of those of Echeverria and Lopez Portillo, have viewed migration as a bilateral policy issue. In general, the rhetoric has concentrated on *pull-factors* but the internal policies have addressed *push-factors*.

U.S. migration policy towards Mexico can be called a story of ad hoc exceptions (Corwin 1978). There are three basic sources of Mexican labor to the U.S. market: legal, undocumented, and commuter. The rules applicable to each of these three groups have changed continuously throughout the past several decades. In 1965 the quota for foreigners entering the U.S. was set at 20,000 annually for each country. Mexico, however, through a mesh of legal loopholes can increase that number significantly by introducing "non-quota" migrants. These exceptions have increased to the point that in 1981 a total of 101,000 Mexicans were allowed in as residents, and the number has fluctuated around 60,000 since that time (see Bilateral Commission Report 1989). IRCA increased the quotas for Mexico and Canada and implemented an amnesty program for which mixed results are expected (Todaro & Maruszko 1987, Stoddard 1989).

The Ford administration attempted to introduce another Bracero program but was not able to get President Echeverria to agree to the terms. The Carter administration attempted to reform Mexican immigration rules but failed due to the fact that his proposal attempted to appease a variety of groups with contradictory interests. In addition, Carter and Lopez Portillo appeared to have a mutual antipathy which made any further discussions on the issue all the more difficult (Bustamante 1985). Reagan and De La Madrid, as well as Bush and Salinas, have had a much more cordial working relationship, and that has led to more informal yet important discussions on the issue of migration.

The issue of illegal migration has been a point of contention between the two countries. Inconsistency in U.S. immigration laws had made the U.S. position on the issue less certain. The McCarran-Walter Immigration Act of 1952 included what became known at the "Texas Proviso" which allowed growers in

Texas to hire undocumented workers. As a result, it was illegal to be an undocumented worker, but it was not illegal to hire such a worker. In the IRCA the "Texas Proviso" is reversed and sanctions are imposed on those who hire undocumented workers. In addition, the number of border patrol personnel has not necessarily been consistent with the policies being implemented.

Finally, the proximity of Mexico to the U.S. allows for the possibility of Mexican workers to find employment in the U.S. but to reside in Mexico. The legality of these workers has long been an issue of debate, and their legal status is still not clearly defined. In fact, certain provisions of the Civil Rights Act of 1964 do not necessarily have to apply to this group (Briggs 1984). In general, the U.S. has not maintained a consistent policy of migration towards Mexico.

IV. International Migration

There are generally three different ways in which Mexican workers obtain employment in the U.S.:

(1) through legal residency as part of Mexico's annual quota or in the non-quota category;

(2) by crossing the border illegally and finding work as an undocumented worker;

(3) by finding employment in the U.S. while maintaining legal residency in Mexico (commuter).

The actual numbers in each of these categories, and in particular the second, are debated.

The percentage of legal Mexican residents to the overall annual number of new residents in the U.S. has been between 11 percent and 14 percent for the past two decades. Furthermore, as the restrictions on quota immigration increased, the number of Mexicans entering in the non-quota category increased two-fold in the 1980's. More significantly, over 80 percent of those entering in the exempt category (non-quota) in 1985 were family related, rather than professional exceptions (see the Bilateral Commission Report, 1989). These figures alone would project a large increase in the population of individuals of Mexican origin. They also raise a major concern for those who argue that the increase in Mexican migration is primarily due to U.S. labor shortages.

The number of undocumented workers, on the other hand, can be primarily attributed to demand-pull migration. Depending on the source, the number of Mexican undocumented workers can range anywhere from several hundred thousand to several million. Reliable network information provides those willing to cross the border illegally with a good opportunity for obtaining employment (Goering 1990).

Finally, the proximity of the two nations allows for a special category of migrants who work in the U.S. but reside in Mexico. North (1970) indicated that this group is numerous and plays an important role in border area labor markets. In another study of commuter behavior, Cobb, Molina, and Sokulsky (1989) reported that the number of commuters has been affected by the growth in maquila investment along the border.

V. The Impact of Free Trade on Mexican Migration

Thompson and Martin (1989) point out that trade liberalization which encourages the shift of production from the U.S. to Mexico may provide a potential avenue for reducing the demand for undocumented workers in the U.S. while simultaneously increasing the demand for labor in Mexico. While immigration policy plays a secondary role in the shaping of U.S. foreign economic and trade policies, recent trade initiatives have favored imports from source countries in migration (i.e. Mexico, central America, the Caribbean Basin). The negotiation of a FTA between the U.S. and Mexico would be expected to increase economic opportunities in Mexico and decrease the *push-factors* associated with migration.

The extent of the reduction in these *push-factors* will depend on the final form of the FTA. Utilizing the U.S.-Canada FTA as a model one can view a list of exceptions from free trade in Chapter Twelve of that Agreement. These exceptions cite GATT Article XX to justify import and export measures that would otherwise be prohibited by the Agreement. The justification of import or export measures undertaken in pursuance of an international commodity agreement is an exception that could be expected to appear in a U.S.-Mexico FTA as well.

The pursuance of current international agreements could reduce the potential gains in Mexico's access to the U.S. market. For example, the steel and textile industries in the Mexican economy are expected to gain from the FTA. Mexican access to the U.S. steel market is currently governed by the Voluntary Restraint Agreements (VRAs). Unless Mexico is exempted from the restrictive levels of VRA exports, the gains would be limited. Textile and apparel exports are currently limited by the Multi-fibre Agreement (MFA). Freedom from quota restraints would allow substantial gains in this sector. The growth would affect maquila production using large amounts of American inputs and textiles produced entirely from Mexican inputs. The ability of these two sectors to decrease *push-factors* will depend on the exceptions included in the FTA.[3]

Proponents of trade liberalization in labor intensive commodities as a way to diminish undocumented migration that results from the pull of U.S. jobs and the push of Mexican unemployment often point to the agricultural sector. A FTA could provide the stimulus to shift some of the production of labor intensive commodities from the U.S. to Mexico which enjoys a comparative advantage in labor costs and climate. Once again, the extent of these gains will depend on the final form of the Agreement.

Agricultural policy is one of the most difficult areas of trade negotiation. Potential sources of conlfict in U.S.-Mexican negotiations include environmental standards, health and safety regulations, international commodity agreements, and snapback provisions.[4] Even if all of these obstacles are overcome, Thompson and Martin (1989) point out that liberalized agricultural trade policies may not yield the same type of emigration-reducing pressures as would freer manufacturing trade.

The ability of agricultural trade to reduce illegal migration from Mexico to the U.S. depends on two related factors: (1) whether Mexican producers use more field labor to increase production to U.S. markets, and (2) whether migrants recruited to work in northern Mexico remain in Mexico after their seasonal farm jobs end. If the seasonal labor needs are met with internal Mexican migrants, then the resulting increase in internal Mexican migration could actually increase emigration to the U.S.[5]

A United States-Mexico FTA may help to reduce the pressure to migrate, but it is not the final solution. Thompson and Martin (1989) point out to three reasons why this may be the case. First, liberalization of agricultural markets without an appropriate increase in the needed infrastructure to produce at the levels required may, if only for a while, not deter rural migrants from seeking employment in the U.S. Second, changes in regional internal migration patterns due to the liberalization may lead to additional migration to the U.S. For instance, Thompson and Martin (1989) argue that the Border Industrialization Program that led to the maquila industry may have inadvertently increased undocumented migration by "pulling" young male workers to the border who did not find employment due to the fact that maquilas have had a tendency to hire more young female workers (a trend that has recently began to change). This two step migration pattern, however, is still debated (Rivera-Batiz 1986 and Seligson and Williams 1981). Finally, as long as the wage differential remains as high as eight to one or even at four to one, the probability of employment in the U.S. must be virtually zero if one is to expect an almost total elimination of undocumented workers.

VI. Policy Options

Increases in trade between the U.S. and Mexico and the consequent economic development, by increasing employment opportunities, should reduce the impact of *push and pull factors* on migration from Mexico to the U.S. As discussed above, in order to obtain the maximum benefits from the FTA, the exclusions from free trade must be kept to a minimum. Negotiators should be aware of the potential migration impact of exclusions (such as the MFA) and the consequences should be considered in the drafting of a final agreement.

The effects of trade liberalization may not be seen immediately in areas that lack infrastructure or marketing expertise. In order to reduce the factors that contribute to migration, programs to support the development of infrastructure

and marketing operations may be necessary. Programs of this type may require relaxation of the Lautenberg Amendment and similar constraints that bar assistance for investment associated with articles that would directly compete with U.S. products.

In addition, we support the Bilateral Commission's (1990) recommendations which stress the need for a more accurate account of the migrant population. This account should concentrate on the number of migrants, their demographic characteristics, their points of origin and destination, and duration of temporary migration.

In conclusion, one of the benefits of the U.S.-Mexico FTA should be a reduction in migration. Realization of the potential benefits will depend on the number of exclusions and on programs which will enhance those areas in need of infrastructure and/or marketing expertise. Improvements in data associated with migrants should improve the prospects of the U.S. and Mexico reaching a formal bilateral accord on migration.

END NOTES

1. Using the U.S.-Canada FTA as a model, the only provision related to movement of labor was related to business travel. For details of the Agreement, see Chapter 15: Temporary Entry for Business Persons.

2. For a more comprehensive discussion of the research related to patterns of internal migration see Gregory (1986) and Roberts (1980).

3. Two additional sectors of the Mexican economy that stand to increase production and employment as a result of a FTA are automotive and electronics. The U.S.-Canada Auto Pact provides a very useful precedent for a similar agreement with Mexico. Increased trade in electronics will come as result of agreements related to technology transfer and intellectual property rights protection.

4. Canada is allowed to restore temporarily tariffs on fresh fruits and vegetables for a 20 year period under depressed price conditions to give producers an opportunity to adjust to more open trading conditions.

5. For a more detailed analysis of the behavior and characteristics of internal migrants see Thompson and Martin (1989).

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Social and Political Implications of the FTA

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I. Executive Summary

Free trade will legitimate the massive economic and social interaction that already exists across the border. Past and future population growth demands investment in public infrastructure along the border. Growth of the economy in Northern Mexico plus international coordination of services and infrastructure could diminish undocumented labor movement.

II. Assumptions

These comments are based on the following four suppositions: (1) that the FTA goes ahead without restrictions on foreign investment that might inhibit economic development; (2) that United States corporations are more willing to allow technology transfer to Mexican corporations and educational institutions; (3) that existing informal cooperation between nongovernmental organizations, and local and state agencies on both sides of the border, continues as before; (4) that United States actions with respect to undocumented immigrants and drug control do not increase to a point where they constitute additional friction between the countries.

III. Advantages of Free Trade

Six advantages are identified. First is the occasion to regularize an existing state of affairs; there is already a massive interaction the two countries in terms of capital, labor and trade, both legal and illegal. Second, this presents an opportunity to reach accord on crossborder spillover effects, such as transboundary pollution. Presently, this is often blamed on residents of one or other country; in the future, it may simply be seen as a shared problem dictating shared solutions. Third, and in relation to the second point, this represents a chance to develop border towns in a more orderly fashion. Using the example of the Pacific

Northwest following free trade with Canada, we can expect increased economic development on both sides of the Mexican/American border; such additional prosperity is necessary to provide a basis for environmental clean-up, new infrastructure (roads, water treatment) and joint planning initiatives. Fourth, this general process of economic development will likely include smaller border towns, which may take some pressure of population growth away from the larger centers such as Tijuana and Juárez. Fifth, a broad wave of development constitutes a chance to diminish the implicit competition that exists between border towns for investment. An increase in cooperation would create the foundations for a functional border economy, integrating development opportunities and manipulating growth away from areas of economic overheating. Sixth, in the long term this can create a political climate in which an innovative border planning region, involving American and Mexican authorities, can emerge to integrate the development opportunities generated by free trade.

IV. Disadvantages

Three main disadvantages are identified. First, the economic development initiated by free trade may lead to rapid, unplanned growth on both sides of the border. This has been seen many times in Sunbelt cities, such as San Diego, Houston, Phoenix, and is endemic to the urban growth experience in Mexico. In such situations, population expansion outstrips the supply of homes and the existing public infrastructure, such as transportation, schools, child- and health-care; urban sprawl develops and pollution of different types is manifested. Using the model of the Pacific Northwest, following free trade with Canada, we may anticipate a concentration of investment along the Mexican/American border, which may in turn lead to a situation of economic overheating. This would, given the limited pollution controls currently enforced along both sides of the border, plus low levels of public investment, lead to further environmental decay and transboundary pollution. This will act as a constraint on growth, and will dictate a barely acceptable quality of life for the poorest residents in both countries.

Second, the attraction of outside investment into border communities may lead to some internal disruption, as established businesses face new competition and property costs rise. In some instances, such gentrification could displace small businesses and low-income households.

Third, increased concentration of investment along the border could reduce levels of growth elsewhere in the Sunbelt, notably in cities already weakened by overbuilding and the S & L debacle during the 1980s, and now threatened by contractions in the defense budget. The growth of a strong border economy could further damage the stagnant economies of cities like Albuquerque and Phoenix.

V. Prospects

Although Mexico and the United States are joined geographically, they possess contrasting cultures and political outlooks that reflect their relative positions within the world economy. Mexico has emphasized a protectionist policy for several decades; the U.S. is committed to free trade, but is concerned about relative decline and competition from the New Europe and the Pacific Rim. While shared interests have emerged along the border, and have generated forms of local cooperation, there remains friction at the higher levels of government. Some accommodation between local and national political controls will be necessary if these tensions are to be resolved; while local and state organizations in the U.S. have cooperated effectively with Mexican counterparts, some federal organizations (e.g. Border Patrol, Customs Service, DEA), have maintained a role along the border that is perceived with disquiet within Mexico. The militarization of the border by new organizations such as the Joint Task Forces has been interpreted in Mexico City as an echo of the invasion of Panama, also a counternarcotics operation. Although no early resolution of issues such as drug trafficking and border patrol is likely, it will be necessary to downplay the threats to Mexican sovereignty from military build-up and hot-pursuit at a time when there will be feelings of national surrender in Mexico. Such feelings could even damage existing liaisons, such as that between EPA and its counterpart, SEDUE.

Without such reassurances, it will be difficult to reach accord on sensitive issues that result from economic development. Greater speed will be necessary in dealing cooperatively with environmental issues as they develop--notably transboundary pollution--and human rights issues, arising from labor exploitation and immigration controls. Greater amounts of shared public infrastructure will also be necessary to coordinate the rapid growth that is likely. This can only be achieved if there is trust between the two nations.

VI. Critical Factors

For the U.S. government to change its defensive stance on aspects of border activity, it will be necessary to dismantle some popular and very negative misconceptions concerning Mexico and its people. The positive impacts of labor movement into the U.S. (in terms of economic development in cities like Los Angeles and San Antonio), the fiscal balance sheet of migration (migrants pay various taxes, consume few services), and the return flows of contraband (Americans smuggling firearms into Mexico), are all ignored in popular debate and present an impediment to politicians trying to sell change to constituencies such as organized labor. Without a shift in the discourse, it will be hard to dismantle the American posture on border defense, which will lead to friction between the two federal governments.

In the short term, some points of emphasis will be crucial. These include: a recognition by the public that an FTA does not constitute a common market and that there is no threat of massive labor immigration into the U.S.; an acknowledgment that an FTA may involve substantial economic opportunities for American corporations along the border; the acknowledgment by federal organizations that their role is changing and that continued cooperation with Mexican institutions such as SEDUE (the counterpart to EPA), is crucial.

In the longer term, a recognition that increased prosperity in Mexico means more jobs in the U.S. (and not solely vice versa) will be important. To this end, American corporations need to be accountable for their actions south of the border, in terms of wage rates, health- and child-care benefits and pollution control. Without such responsibility, low incomes, poverty and pollution will continue to be seen as national character traits, rather than predictable results of the development process.

VII. Priorities

Reassurance and accord on the drug question should be sought, so that this does not loom as a major stumbling block. Concerns of organized labor regarding job losses should also be addressed, emphasizing that free trade is unlikely to speed up the transfer of jobs, and should increase the growth of employment along the border. Emphasis can then be placed on key issues, notably agreement on the responsibilities of American corporations for the quality of life of workers employed and environmental cleanup.

Education

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I. Executive Summary

The Free Trade Agreement (FTA) between Mexico and the United States will accelerate changes in the bilateral relationship, including enhanced economic interdependence, labor and capital flows, cultural interactions, and significantly greater problems of managing all aspects of life in the border region. Both the United States and Mexico face a critical shortage of teachers, business people, government officials, and policymakers who understand the customs, traditions, and unique realities of the other country and speak both Spanish and English. Thus, the educational system of the border region faces an important challenge in training the next generation of leaders and workers to function in the new environment.

The K-12 and higher education systems of the U.S. border region will be particularly challenged by the effects of the FTA but also will encounter unique opportunities for cost-effective faculty and student exchange, development of joint degree programs, and generation of joint research projects. Congress should eliminate barriers to academic free trade and should explore innovative mechanism for funding changes needed to produce the human capital required for the FTA.

II. Assumptions

The Free Trade Agreement (FTA) will increase trade and economic integration between Mexico and the United States. The FTA does not contemplate the legitimate free flow of people between the two countries, except for white collar workers. While in the long run it is expected that the FTA will create employment in Mexico and slow the flow of northward migration, in the short run high levels of migration to the United States will continue. Furthermore, continuation of current Mexican domestic wage and price policies, coupled with the failure of non-competitive Mexican firms, might well enhance the flow of undocumented middle class migrants to the United States. The FTA is at least

as significant to the United States as the formation of a European trading bloc and the Mexico connection will constitute the lens through which the United States views its relationship with the rest of Latin America, the natural trading area for the United States. All of these elements will place a new burden on the educational system of the border region to form the human capital necessary to manage the new bilateral relationship and also to respond to the new opportunities presented. The restructuring of the U.S. economy will be accelerated by the FTA; this will also have implications for the education sector. Both the United States and Mexico face a critical shortage of teachers, business people, government officials, and policymakers who understand the customs, traditions, and unique realities of the other country and speak both Spanish and English.

III. Advantages

It is assumed that the FTA will involve increased bilateral trade and increased foreign manufacturing investment in Mexico, and much of this double increase will be felt one way or another in the border region. The FTA will result in increased employment in the border region, initially on the Mexican side but with important spillover effects on the U.S. side. Presumably, the trends of opening and liberalizing the Mexican economy will continue, creating more employment opportunities for graduates of U.S. border technical schools, colleges, and universities in Mexico and in Mexico-related activities in the public and private sectors. Thus, careers in business and government in the U.S. border region will necessarily have a strong international component. Undergraduate education, such as the International Business Major at San Diego State University that includes business courses and language and area studies training, will prepare young people for jobs in their communities, and also for work with Mexico and Latin America.

Another potential advantage for the U.S. border region within the framework of the FTA is the possibility of U.S. and Mexican trade-tech and higher education developing joint degrees and training programs and initiating significant student and faculty exchange programs involving large numbers of people. This process will begin to train the next generation of leaders needed to manage the growing integration of the two countries. The border location will allow Mexican and U.S. universities in adjacent twin cities to initiate programs at low cost, developing models that can serve other universities in both countries. The FTA and border location will provide immediate stimulus for international education that will be crucial for the United States in the twenty-first century.

Increased cooperation of the K-12 educational systems on both sides of the border is also a potential advantage of the FTA. The Latino population is the fastest growing segment of the population on the U.S. side of the border, and most is of Mexican origin. In California, for example, in 1986 the Hispanic portion of the state's K-12 population was 29 percent; this figure is projected as 35 percent in 2000 and 44 percent in 2030. U.S. border educational systems will

have to make major adjustments to serve the changing composition of its students, and collaboration with the Mexican system will aid in this effort. Because of the flow of short term residents between the Southwest of the United States and Mexico, K-12 students often lose credit for study in the United States because of bureaucratic procedures. A pilot project in California for migrant children needs to be expanded so that children who study in both Mexico and the United States are able to maintain suitable academic progress.

Because of the Mexican cultural influence on the U.S. border region, there exists already positive reinforcement for young students, K-12, to learn more about Mexico and Hispanic culture. Even at young ages, the study of Spanish is more likely to be successful if it is viewed as a process of acquiring a skill that can be put to immediate and practical use rather than as an intellectual exercise.

The experiences of education in the border region of the United States can set patterns and develop models to be employed elsewhere in the country, and lay the groundwork for increasing world trade.

IV. Disadvantages

There are several potential disadvantages to education in the U.S. border region resulting from FTA. Free trade will likely have a larger impact on the border region, stimulating growth with the usual attendant infrastructure problems, including those in the education sector. Free trade might increase the flow of undocumented immigrants to U.S. border regions, at least in the short run, which will burden local school districts without mechanisms in place for federal or state compensation for added costs.

Mexican border cities will continue to grow with the increased stimulation of FTA, particularly as the manufacturing sector increases. This will amplify the existing spillover effects on U.S. education. For example, a significant portion of the students in the public school system of the Imperial Valley in California are Mexican citizens, children of parents who want their children to have the advantages of learning English and what they often perceive as a better educational system. The University of Texas, El Paso, waives out-of-state tuition for residents of Ciudad Juárez. This subsidy for Mexicans by Texas taxpayers will most likely increase significantly with FTA. Most U.S. border universities permit access by Mexican student and faculty to library research collections and other research facilities. These constitute significant real costs to serve the binational communities.

V. Assessments/Prospects

The initial reaction within the border U.S. academic community regarding FTA was positive and supportive as was the case on the other side of the border. This initial enthusiasm was based primarily on macro analysis. As scholars and analysts delved more deeply into individual sectors an increasing number of specific concerns about the FTA are emerging. Thus, I suspect that mixed signals about FTA will be coming out of border universities with regard to the direct impacts on higher education and as viewed more broadly. In any case, it seems clear that the Free Trade Agreement will provide a significant challenge for K-12 and higher education in the border regions.

VI. General Recommendations

A component of FTA should also be an "academic free trade" relationship between the two countries. This would include removal of regulatory and administrative bottlenecks that impede academic freedom, scholarly research, and student and faculty exchange. For example, bureaucratic barriers make it very difficult for Mexican students to study K-12 or at the university level in the United States and receive official credit for their studies and official recognition of their degrees. Mexican universities have strong administrative and legal barriers restricting the hiring of faculty from the United States while U.S. higher education institutions have regularly hired faculty from Mexico. In Mexico, access to research materials, collection permits for scientific studies, and permits for archaeological excavations are often restricted to scholars from the United States or granted only with onerous stipulations or excessive costs. Similarly, political considerations often restrict the ability of both Mexican and U.S. scholars to carry out legitimate research.

Other barriers to better cooperation by the educational infrastructures include transportation bottlenecks at the border, including restriction of buses from the United States in Mexican border areas. Communication bottlenecks are also a problem; scholars in Ciudad Juárez calling colleagues in El Paso must pay exorbitant long distance rates. All along the border, and in both countries, transmission of voice and data are significant problems. Improved telecommunications will pay great dividends in the form of joint research, exchange, and sharing of resources.

VII. Priority Issues.

There are a number of items that should be put on the table, or considered separately by Congress, during negotiations with Mexico on the Free Trade Agreements. These include:

- Better integration of educational systems to facilitate student and faculty exchange, joint degree programs, and so forth. This is needed to train future leaders and workers to make economic integration function smoothly, to the benefit of both countries.

- Elimination of legislative and other barriers that prevent U.S. universities from fully cooperating with Mexican counterparts. For example, SDSU cannot establish a joint Geological Sciences Ph.D. program with a Mexican border institution because the University of California has a monopoly on Ph.D. programs under current California guidelines. Similar barriers exist in Mexico. Resolution of such problems should be part of the agenda.

- Concerns about academic freedom in Mexican universities and research institutions should be addressed.

- Barriers that restrict the ability of U.S. scholars and universities to carry out legitimate scholarly research in Mexico should be discussed during the negotiations.

- A mechanism should be discussed for determining the educational costs of FTA and a means of fairly apportioning the added expense should be devised.

- Congress should insist that the FTA include a framework agreement for enhanced integration and cooperation of the educational systems of the United States and Mexico, particularly in the border region.

- Congress should include debt-for-education swaps as part of the discussions with Mexico.

Cultural Issues

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There is an adage to the effect that if you're a buyer, you don't need to know a foreign language, but if you're a seller it is essential. Actually, the moral of this adage is that you need to know not simply your customers' language to sell your product, but also their culture (their basic beliefs, values and desires), in order to communicate effectively and persuasively with them. In the context of free-trade talks with Mexico, this adage seems particularly appropriate to invoke.

As economic barriers between Mexico and the U.S. may begin to fall and free-trade talks become more serious, a corresponding dialogue needs to take place about ways we can increase our understanding of each other as a people and society. International trade marks only the beginning of a relationship that cannot remain one-dimensional, that cannot mature and flourish if our perceptions of each other are based on misunderstanding. Since both Mexico and America have changed dramatically over the past thirty years, it is even more imperative to present accurate representations of each other's country in contrast to many prevailing stereotypical views. The dawn of a new relationship with Mexico requires nothing less, if we are to become more fully neighbors and trading partners.

America can take a number of steps to increase its citizens' understanding of Mexican history and culture, including current trends. An obvious starting point is formal education, where schools and universities can internationalize the curriculum at all levels, with special emphasis on Mexican studies and Spanish language. These efforts, however, should not stop with formal education; particular interest should be paid to fostering adult-education opportunities, which will constitute the chief concern of this paper. At the same time as we are educating our citizenry, it will behoove us to export our cultural products that portray the social and ethnic diversity of contemporary America, in order to provide Mexicans with a more accurate picture of our life and people--as an antidote to televisions programs like "Dallas" and movies like *Rambo*. Finally, since Mexico would presumably have a similar interest in fostering authentic views of their contemporary life, both countries should put a premium on cultural-exchange programs involving a variety of formats: lectures and conferences, art and photographic exhibits, film series, and radio and television programming.

Although these suggestions are not new and a number of efforts are already underway, these concerns seem to have intensified lately. In Texas, for example, my office, the Texas Committee for the Humanities (TCH), a state

program of the National Endowment for the Humanities (NEH), has for many years supported various programs on Mexico, including cultural-exchange projects. It was not, however, until June 1989 that the Texas Legislature passed a resolution (HRC 236) designating the TCH to promote cultural-exchange programs with the state's leading trade partners, especially Mexico, as well as Canada, Japan, and South Korea. The resolution also charged the TCH to develop a report detailing a long-range plan for sustained cultural exchange as well as for improving international studies in the schools and universities. Entitled *Texas in the 21st Century: The International Agenda*, the report, which we will present to the governor and legislature in early 1991, will lay the groundwork for cooperative ventures and call for support from the state and its agencies.

In passing this resolution, the state legislature was responding to a growing need voiced by some business leaders to make Texas more competitive in international trade--the concern ultimately fueling this interest in other cultures. For it has started to dawn on a number of businessmen and legislators that if Texas is to become a key player in selling its wares in the international marketplace or in luring foreign companies to establish plants in the state, its citizens will need to know more about these countries and their people, including their language, history, religions, and psychology. In short, we will need to become familiar with their basic beliefs and values, which are the natural domain of the humanities. At the same time, these legislators and businessmen recognized the critical need to export authentic, contemporary Texas culture and history to countries where they were intending to do business, in order to show that Texas is a modern, sophisticated state ready to compete in all phases of the international marketplace. The message is clear: trade and culture go hand-in-hand, whether one's interests lie in exporting or importing.

While TCH activities and its report focus on state and local initiatives, similar themes regarding enhancing educational opportunities and cultural exchange with Mexico resound at the national level. In *The Challenge of Interdependence: Mexico and the United States* (University Press of America, 1989), the Bilateral Commission on the Future of United States-Mexican Relations—a group of prominent private citizens from both countries—assessed long-term patterns of change and continuity and made recommendations for private leaders and public authorities. Education and cultural exchange were included among their main concerns, underlying the practical problems of economics, immigration, and foreign policy. Among their recommendations, many of which were geared towards national policy, was "the implementation, expansion, and development of the recent Bilateral Agreement on Cultural Exchange and Scientific Cooperation between Mexico and the United States." Like many previous agreements, this one, signed in June 1987, seemed to lack commitment.

Finally, I would like to cite the *Statement of the Baylor Regional Studies Center before the House Trade Subcommittee on United States-Mexico Economic Relations* (June 14, 1990), which recommended "the establishment of

a United States-Mexico commission capable of addressing not only economic but also social, cultural, environmental, and political issues."

Cultural Exchange

The TCH Report and that of the Bilateral Commission contain a number of recommendations for strengthening Mexican studies at the elementary, secondary, and university levels, recommendations that I will not repeat in this short paper. Besides formal educational activities, both Reports stress adult education to increase the opportunities for citizens to learn more about Mexican history and culture through formats such as lectures and conferences, interpretive exhibits, and radio and television programs. These programs have been under way for some time in our part of the country with some of the most interesting ones involving cultural exchange.

Most importantly, over the years we have worked closely with two Mexican institutions, which we were fortunate to have located in San Antonio: (1) a branch campus of the National University of Mexico (UNAM), and (2) the Mexican Cultural Institute, a cultural center under the auspices of the Mexican Embassy. UNAM offers Spanish language and culture courses as well as public programs, while the Institute features a wide variety of activities ranging from exhibits and films to musical and arts performances. Besides helping the Institute promote its traveling exhibits in other parts of the state, we have funded and co-sponsored its traveling exhibits in other parts of the state, we have funded and co-sponsored a number of activities with UNAM. For example, in 1988-89 the TCH funded UNAM to present a year-long, multifaceted program on contemporary Mexican culture, including lectures/conferences, exhibits, and films--all of which drew heavily upon Mexican scholars and resources.

Perhaps the most spectacular example of a high-profile, national project is *Mexico: Splendors of Thirty Centuries*, an art exhibit which was organized by the Metropolitan Museum of Art, where is will appear from April to early August 1991, and the Los Angeles County Museum of Art thereafter. The TCH will be supporting public education activities taking place in libraries, universities, and other cultural centers prior to and during the exhibit's sojourn in San Antonio.

TCH has also been involved in projects exporting Texas culture to Mexico. In late 1986 working through the Mexican Cultural Institute, we made an overture to the Mexican cultural attaché for a formal exchange project, in which we would each develop a traveling photographic exhibit reflective of contemporary life in our respective country or state. For our part, we provided a grant to the Texas Photographic Society to develop the *Texas Visions* exhibit with a bilingual catalogue--a project that integrated the thinking of scholars in history, American Studies, and social anthropology with the work of twenty-five of Texas' finest documentary photographers. The ethnographic nature of the project was designed to break through stereotypical views of Texas by capturing some of the ethnic, cultural, regional, and socioeconomic diversity of the state. After opening

at the Mexican Cultural Institute in September 1988, the Mexican government circulated the exhibit in 1989 to venues in Mexico City, Guadalajara, and Saltillo.

Partnership

In the course of this paper, I have hinted at only some of the key organizations in America that can take an active lead in promoting this public-education agenda, including cultural-exchange programs, with Mexico. At the federal level, the National Endowment for the Humanities and its counterpart, the National Endowment for the Arts, whose mandates include international programs, could team up with the United States Information Agency (USIA). In addition, both of the national endowment have their own state programs, such as the Texas Committee for the Humanities, which support a wide variety of cultural programming by museums, libraries, historical societies, universities, PBS/NPR stations, and so forth. Mexican programs should be of particular interest to the humanities councils in the border states.

The NEH and state humanities councils can also be helpful in generating humanities materials for export. State humanities councils and the NEH are typically sources of programs depicting authentic American history and culture, especially focusing on regional, local, ethnic, and women's topics. Many of these programs involve films and exhibits that can be easily sent abroad by an organization such as the USIA, whose mission is to promote American culture internationally. The NEH, for example, was the principal funding source of the American Short Story film series in the late 1970s-early eighties, and more recently of the Civil-War documentary series, produced by Ken Burns, that riveted audiences in the fall of 1990. Materials such as these could form the nucleus of an authentic look at the American experience, instead of the Rambo syndrome so often identified with American culture.

Achieving this agenda will require the collaboration of various funding sectors since the federal government cannot do it alone through its national endowments (and state programs) and the USIA. This agenda provides an ideal opportunity to forge a partnership that includes the business and foundation worlds, especially those with a focus on Mexico.

Conclusion

The initiatives outlined in this paper are designed to position the U.S. to effectively deal with the dawn of a new economic age in which Mexico and the U.S. will have the chance to enhance the economic future of both countries. The success or failure of that relationship will not depend solely on the business acumen of those involved, but also on the ability to understand the social and cultural differences that exist between us.

Legal Issues

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I. Executive Summary

As the United States and Mexico begin to pursue seriously the development of a Free Trade Agreement to open the international doors of opportunity to each other, a legal framework must be developed to support the international economic infrastructure necessary to develop free trade in the most efficient and equitable manner. Whether the Free Trade Agreement becomes a reality beyond the present *maquiladora* program depends on the answers to several legal questions. These legal questions are discussed in this paper.

II. Assumptions

The continuous success of the maquiladora[1] program provides a strong basis for expanding the perimeters of trade between the United States and Mexico.[2] The free trade proposal was submitted to Congress on February 14, 1987, by Congressman William Richardson (D-NM) entitled the U.S.-Mexican Border Revitalization Act.[3]

Therefore, there is an assumption in this paper that both the U.S. and Mexico are desirous of implementing an economic-legal infrastructure to embellish the already existing international trade. Economic interdependence, coupled with a close binational affinity between Mexico and the United States, have already created a spill-over effect whereby the domestic policies of one country often affect and are affected by the foreign and commercial policies of the other. Both countries therefore would benefit from a free trade agreement.[4]

III. The Implementation of Legal Infrastructures to Effect Advantageous Free Trade

The Free Trade proposal[5] is of great benefit to both the U.S. and Mexico since the proposed bill requires the use of labor[6] and capital from both countries. Investors from both sides of the border will be allowed to invest in each other's country. This will result in the development of greater investment markets. In addition, the capital formation and development of industry will encourage the employment of labor from both countries.[7]

A Mexico-United States trade agreement would regulate and, ideally, eliminate economic barriers between the two nations including tariffs as well as non-tariff barriers such as laws or regulations that explicitly or indirectly impose discriminatory burdens on goods and services of foreign origin.[8]

IV. Difficulties in Developing and Maintaining a Legal Infrastructure for Free Trade

First, there is some concern that, with Mexico's political system overshadowing its legal system, there is a tendency for a continual threat of unilateral changes to the rules of the game involved in U.S.-Mexico trade.

Second, the fact that U.S. and Mexico have distinct legal systems (one functions under the common law and the other under the civil law tradition) present some challenging opportunities which will be more difficult to reconcile than the laws between the U.S. and Canada.[9]

Third, there are no current mechanisms to resolve trade disputes[10] and therefore some will have to be developed between the two countries whose culture, language, and political, social, economic, legal and historical traditions are significantly different.[11]

Fourth, the people of each country have a different view of the role of government in their daily lives. In fact, Mexican citizens expect more than their American counterparts in the way of service, financial aid and other support systems,[12] from their government.

Fifth, Mexico, like Canada, has a great concern with the maintenance of its national and cultural identity. Mexico has a national policy of fostering its cultural identity as distinct from the United States through its broadcasting industry which is to a great extent government regulated.[13] This presents some difficulties U.S. advertising within the Mexican communication systems targeting Mexican consumers.

V. Assessments/Prospects for Free Trade

If the *maquiladora* program is any indication of the success of a Free Trade Agreement then the prospects for free trade are very good. The *maquiladora* program is currently Mexico's second largest source of foreign exchange[14] and it is the most rapidly expanding industry in Mexico.[15] Currently the industry employs some 500,000 workers in over 1,800 *maquiladoras.*[16] It is estimated that by the year 2000 the program will generate over $10 million in value added and employ almost one million workers.[17]

Mexico is the third largest trading partner of the United States.[18] U.S. exports to Mexico totaled $24.1 billion, while Mexican shipments to the U.S. reached $26.6 billion.[19] Mexico is the largest source of all U.S. imports from co-production facilities abroad.[20]

VI. Critical Legal Factors Upon Which the Prospects are Dependent for Realizing Free Trade

Many laws, regulations, and policies will ultimately need to be harmonized between the two countries in order to effectuate a free trade agreement. For example:

A. Tariffs

The first, most obvious objective is to eliminate tariffs on the widest possible range of traded goods and services[22] which continue to limit access and act as a major impediment to both markets.[23]

B. Nontariff Barriers

Nontariff barriers at both the federal and the state levels effectively preclude many exports from entering the market place.[24] These include quotas and minimum prices on imports and exports,[25] sales and excise taxes, regulatory requirements[26] on imports, customs duties and customs users fees.[27] One question that needs to be resolved is whether antidumping and countervailing duty laws[28] are considered non-tariff barriers?

The U.S. should also be assured of long-term access to Mexican energy supplies. This would require the end to current discriminatory practices towards energy exports to the United States.[29]

C. Foreign Investment and Financial Services

Other major obstacles to the free trade agreement are the laws affecting U.S. investment and financial services in Mexico[30]. For example, will American banks be able to operate banking services in Mexico on the same basis as other foreign banks, a Mexican bank, or a U.S. bank?[31] These are difficult questions because of past experiences with respect to the nationalization of banks by the Mexican government.

The issue of expropriation of investors' holdings needs to be looked at very carefully in order to provide a sense of assurance to investors. In addition, investors must be assured via the trade agreement that neither party may prevent repatriation or transfer of profits, earnings, or liquidation proceeds by citizens of the other.[32]

D. Trade In Services

Of particular significance is the strong interest of the United States to have Mexico's financial services laws liberalized and made more accessible to the American financial industry.[33] American firms would be interested in having the following financial services liberalized.[34]

1. The prohibition against foreign firms offering financial advisory service to both individuals and institutions in Mexico.

2. Laws affecting access to telecommunications, information networks and electronic services delivery systems.

3. Current laws restricting the operations of foreign securities firms and banks in Mexico.

4. Others would include: transportation services, production, distribution, communications, professional services, real estate, computer services, enhanced telecommunications, advertising, insurance, aviation, leasing, construction and engineering.[35]

E. Intellectual Property

Mexico does not accord adequate protection to American ownership and copyrights.[36] American would like to see rules negotiated in the free trade agreement that would afford copyright protection.

F. Government Assistance

Nations throughout the world provide subsidies to attract new investments, to maintain existing ones, to encourage exports,[37] to redistribute industry geographically within their borders, to encourage research and development, and periodically to rescue or rejuvenate a failing industrial sector or company.

Subsidies exist in the United States, but they are more piecemeal and are less extensive at the federal level than at the state level.[38] The U.S. would like to insure that Mexican industry is not subsidized to the extent that free competition would be injured.

What about the industry that will be displaced as a direct result of the implementation of the Free Trade Agreement? Will there be some reserve legal rights to provide emergency relief to domestic industries injured by imports?[39]

G. Dispute Resolution Mechanisms

The greatest dilemma with respect to dispute resolution mechanisms is the fact that Mexico and the U.S. have two distinct legal systems: the common law system and the civil law tradition. In the common law system, laws are interpreted and extended by the court through the doctrine of precedent or *stare decisis*, while in the civil law tradition in Mexico the court is by and large functionary and administerial.

Moreover, while the Mexican Constitution allows for a similar body like the U.S. Congress to promulgate laws, in reality the president effectuates law through presidential decree, thereby empowering him to effectuate economic and social policy.[40]

Since there are presently inadequate mechanisms to resolve disputes,[41] the question then becomes what kind of legal procedures and structures can be developed that might provide adequate assurance to both countries that any resort to trade remedies by either side are justified?[42]

Therefore, it becomes imperative that some type of intergovernmental administrative entity be established to implement and monitor the agreement.[43] Conceivably, the settlement of disputes could be left to those procedures provided for under the GATT, but this would be less than ideal.[44]

VII. Priority Issues that the Congress Should Ask the Administration to Clarify and Monitor During the Negotiations

In conclusion, the Congress should request the Administration to closely monitor, during the negotiation process, the legal aspects with respect to tariff, and nontariff barriers including foreign investment law, trade in services, intellectual property law and subsidies. Of particular significance and importance will by the dispute resolution mechanisms.

Endnotes

1. See Turner, "Mexico's In-Bond Industry Continues Its Dynamic Growth," 7 *Business America* 27 (Nov. 26, 1983). See also A. Valdez, note 7 at p. 397. In 1965 the Mexican government adopted the Border Industrialization Plan, the purpose of which was to foster the economic development of Mexico, provide jobs along the U.S.-Mexican border, and promote foreign exchange of goods and currency. What emerged was the *maquiladora* industry.

2. *Infra*, note 6, at p. 402. Abelardo Valdez was the first to articulate a vision of a Free Trade Zone between the United States and Mexico when he was a graduate student at the Harvard Law School in 1974.

3. H.R. 1006, 100th Cong., 1st Sess., 133 Cong. Rec. H592 (daily ed. Feb. 4. 1987). The initial proposal for a U.S.-Mexico Free Trade and Coproduction Zone was developed and drafted by A. Valdez, "A Proposal for a U.S.-Mexico Free Trade and Coproduction Zone," Submitted to the U.S. International Trade Commission (Mar. 24, 1986).

4. *Infra* note 12.

5. See H.R. 1006, § 4(a), 100 Cong., 1st Sess., 133 Cong. Rec. H592 (Daily ed. Feb. 4, 1987).

6. See H.R. 1006, 100th Cong., 1st Sess., 133 Cong. Rec. H592 (daily ed. Feb. 4, 1987). See generally, "Canada-U.S. Free Trade and Labor Relations." 41 *Lab. L.J.* 454, (Aug. 1990).

7. A. Valdez, "Expanding the Concept of Coproduction Beyond the Maquiladora: Toward a More Effective Partnership Between the U.S. and Mexico, and the Caribbean Basin Countries," 22 *International Law* 393, 404 ((1988).

8. *Infra* note 12, at 372.

9. *Infra* note 29, The Canada Free Trade Agreement.

10. J.W. Reifenberg, Jr., "Barriers to United States-Canada Trade: Problems and Solutions", 80 *Am. Soc Intl L Proc* 326 (1986).

11. *Supra* note 7 at 404. The U.S.-Mexico Free Trade Agreement proposal would place no geographic limitations. However, the cities on which there would be greatest impact and which would have the greatest advantage would be San Diego, California; Phoenix, Arizona; Albuquerque, New Mexico; and San Antonio, Texas. Also affected would be Monterrey, Saltillo, and Chihuahua in Mexico. In this region, the two countries maintain similar cultures, language, geography, and entrepreneurial spirit.

12. See also S.P. Battram, "Barriers to U.S. Canada Trade: Problems & Solutions," 80 *Am. Soc'y Int'l L. Proc* 326, 31 (1986).

13. Ibid. at 332.

14. *Supra* note 1, at 26. The Petroleum/hydrocarbons industry is the largest source of foreign exchange.

15. Ibid.

16. Matt Moffet, "Along the U.S. Border Mexico Experiences North's Economic Ills," *Wall Street Journal*, Jan. 14, 1991, p. A8.

17. O'Reilly, "Business Makes a Run for the Border," *Fortune* p. 70, (Aug. 18, 1986). See also note 1, at 26. Also see A. Valdez, *Supra* note 7, at 398.

18. U.S. International Trade Commission, *The Impact of Increased U.S. Mexico Trade on Southwest Border Development* xiv (Nov 1986).

19. U.S. International Trade Commission, *Operation of the Trade Agreements Program*, 41st Report, 1989, publication 2317, p. 112..

20. *Supra* note 7, at 398.

21. *Supra* note 1, at 391.

22. R.W. Parker, "United States-Canadian Trade: The U.S. Perspective," 19 *Geo. Wash. J. Int'l L & Eco.* 433, (1985).

23. *Supra* note 12, at 364.

24. Ibid., at 365.

25. Cf. at note 7. However, the Mexican Government generally permits much flexibility among *maquiladora* operations. But it does restrict the sale in Mexico of goods produced in a *maquiladora* plant. Currently, the *maquiladora* industry sells only five percent of its products in Mexico. See generally Turner, note 1 at 26.

26. *Supra* note 7 at 401. "In 1983 the Mexican Government established a ceiling of domestic sales at twenty percent of the output from a coproduction facility. Also see Turner, *Supra* note 1, at 29.

27. *Infra* note 32, at 574.

28. See *ASG Industries v. United States* 610 F.2nd 770 (1979).

29. See also, United States-Canada Free Trade Agreement, Signed Jan 2, 1988, arts. 902-04.

30. *Supra* note 1, at 365. Also see Battram, "Canada-U.S. Trade Negotiations: Continental Accord or a Continent Apart" 80 *Am. Soc'y Int'l L. Proc.* 326, 333, (1986).

31. See generally W.B. Rose, "Barriers to U.S. Canada Trade: Problems & Solutions," 80 *Soc'y Int'l L. Proc.* 326, 334 (1986).

32. See also C. Walton, "International Trade-U.S. Canada Free Trade Agreement, Signed Jan. 2, 1988," 29 *Harv. Int'l L.J.* 572, 577, (Spr. 1988).

33. *Supra* note 12, at 365.

34. A. Carlsen, "The Canada-U.S. Free Trade Agreement: A Bilateral Approach to the Reduction of Trade Barriers." 12 *Suffolk Transnat'l L.J.* 299, 313 (1987).

35. R.W. Parker, "Barriers to U.S.-Canadian Trade: Problems and Solutions-Canadian View," 19 *Geo. Wash. J. Int'l L & Eco.* 443, 445 (1985).

36. Ibid.

37. Ibid., at 444.

38. *Supra* note 12, at 372.

39. *Supra* note 32 at 574.

40. Lecture by Jose Ramon Palacios Vargas ,former Supreme Court Justice of the United States of Mexico at the Universidad de Monterrey, Monterrey, Nuevo Leon, Mexico. Foro de Derecho, "Perspectivas Actuales de las Ciencas Juridicas." (Nov. 6, 1990).

41. *Supra* note 12, at 365. See also Carlsen, "The Canada-U.S. Free Trade Agreement: A Bilateral Approach To The Reduction Of Trade Barriers," 12 *Suffolk Transnat'l L.J.* 299, 315 (1987).

42. J. Fried, "Barriers to U.S.-Canada Trade: Problems & Solutions," 80 *Am. Soc'y Int'l L. Proc.* 326, 344 (1986).

43. *Supra* note 1, at 363.

44. Contra Stone, "Canada-United States Economic and Trade Relations: Institutional Arrangements" in the *Legal Framework for Canada-United States Trade*, 3 (1987). There is general agreement that the GATT dispute resolution mechanism is too cumbersome to deal with trade disputes in a timely manner.

IV. A Model/Scenario

"The Impact of Mexican Trade on the Texas Economy," *M. Ray Perryman, Baylor University*

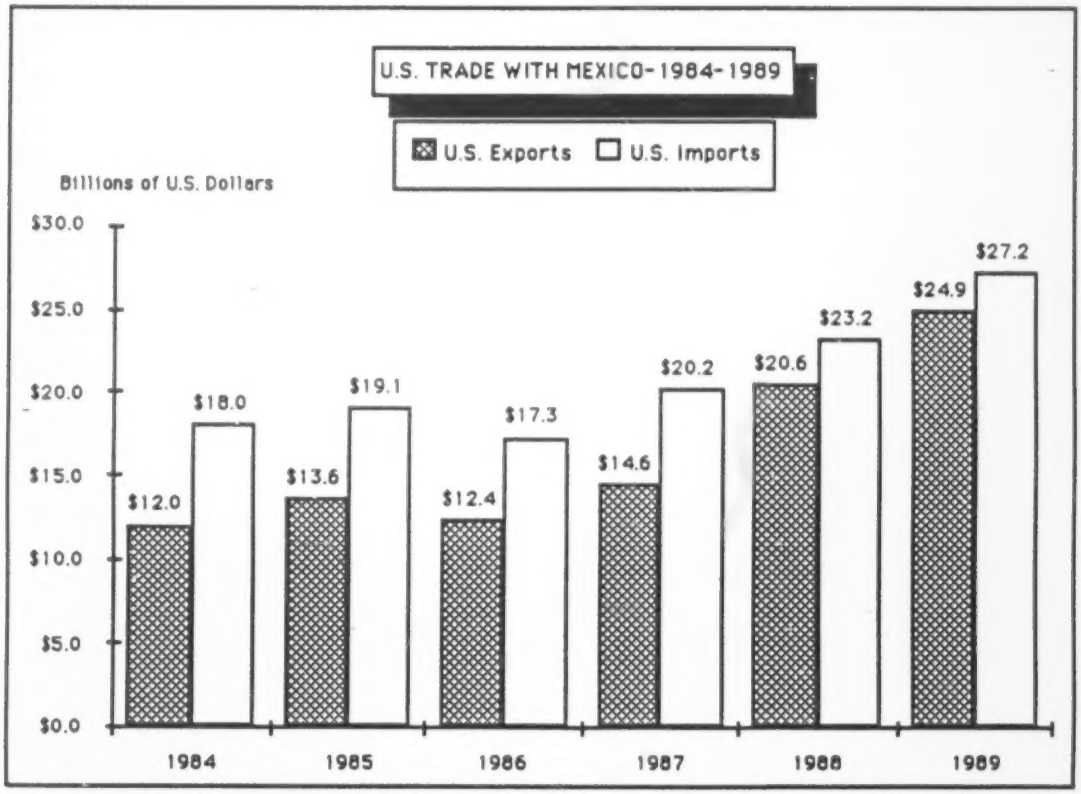
The Impact of Mexican Trade on the Texas Economy: An Analysis of Current Patterns and Some Potential Effects of a Free Trade Agreement

M. Ray Perryman

Baylor University

I. Introduction

Phrases such as "Global Village" and "International Marketplace" are rapidly making their way into the vocabulary of corporate America. Advances in communications, electronics, and transportation have indeed made the concept of a world economy an increasing reality. In fact, it is widely understood by many businesses in the United States that the domestic economy no longer comprises



an appropriate target market and that competitive strategies must take into account the actions of entities located in distant places. The relative openness of the U.S. to foreign producers has already placed enormous pressure on the industrial sectors such as transportation, textiles and apparel, electronics and

other forms of high technology, home appliances, primary metals, and many others.

The major nations of the world are presently engaged in substantial and ongoing efforts to secure well-balanced alliances to ensure competitiveness in the global business environment of the future and, to a significant degree, the present. The U.S . is no exception; it has recently signed a free trade agreement with its largest trading partner, Canada, and is aggressively pursuing a similar agreement with Mexico.

An expanded trading relationship will have profound impacts on Texas. Mexico is already Texas' largest and the nation's third largest trading partner. The total volume of imports and exports exceeded $50 billion in 1989, with more than $30 billion passing through Texas ports. The best available approximation of the total value of goods attributable specifically to production in Texas totals nearly $10 billion. Likewise, Mexico purchases fully two-thirds of all its imports from the United States and sells a comparable percentage of its exports in this country. Although the effects on specific industries will vary dramatically, a more open trade policy clearly represents a notable opportunity for Texas to enhance its overall productive capacity.

Given the importance of international trade to the competitiveness and ultimate growth of U.S. businesses, the rationale for enterprises within the state to actively pursue the Mexican market is readily apparent. In addition, there are some definitive advantages afforded Texas businesses that trade with Mexico. One of the most obvious of these is "the bottom line." Although modern electronic, transportation and communication technology has greatly reduced the perceived size of the world, exploiting global markets necessarily involves higher expenses, due primarily to customs fees, varying international compliance standards, and increased transportation and shipping costs. The proximity of Mexico to Texas provides an immediate advantage relative to other trading partners via the reduction of travel distance and, thus, transportation costs.

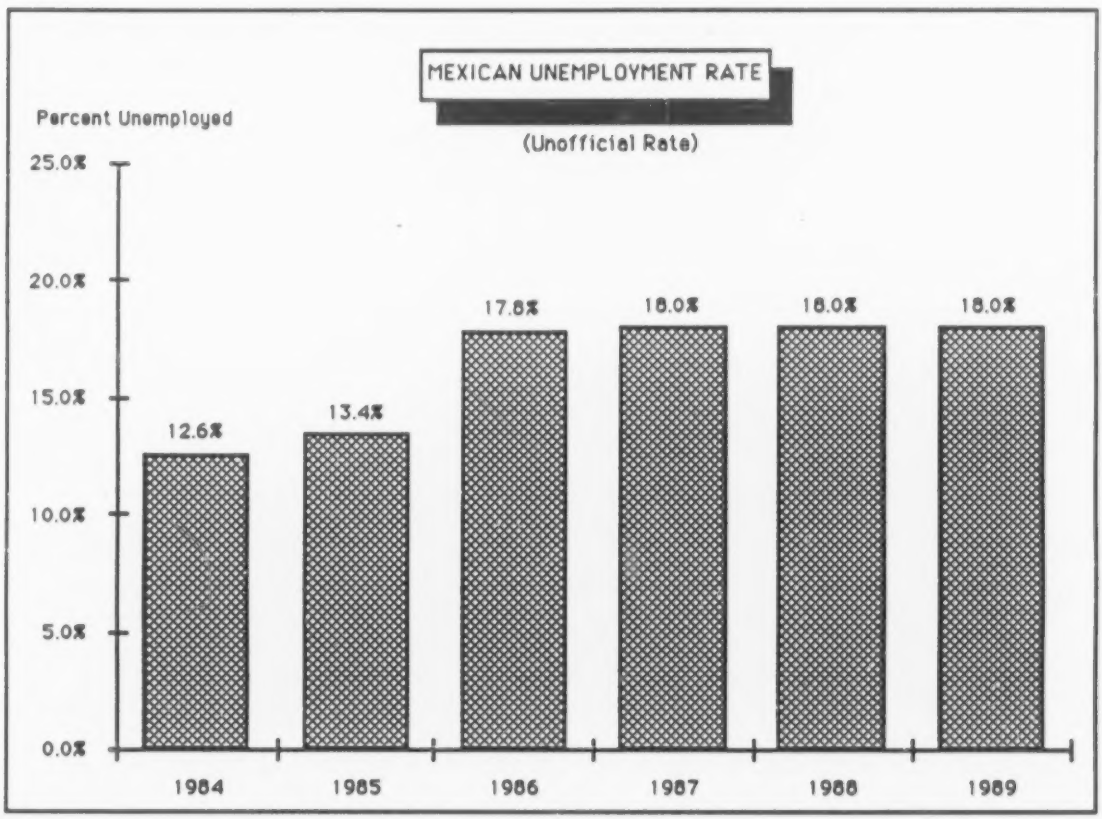
Another largely untapped resource that would be made available as a result of less stringent foreign investment policies is the large labor force. In 1986, the unemployment rate in Mexico stood at 17 percent. Moreover, the work force is continuing to grow by some 900,000 people per year. In spite of a sustained recovery and substantial job growth, the unemployment rate has actually risen and is projected to average around 20 percent, even assuming annual real growth in gross domestic product (GDP) of 6 percent for the next twenty years. This inexpensive and abundant source of labor can provide a viable work force for many types of manufacturing facilities, as the successful Maquiladora factories have demonstrated. As illustrated in previous studies by Perryman Consultants and others, the presence of assembling operations in Mexico brings enormous benefits to the Texas economy.

This analysis examines several issues related to the current trading relationship with Mexico and the implications of a free trade agreement with

Texas. Specifically, the report offers an overview of the Mexican economy and its trade patterns, an evaluation of the current impact of exports to Mexico on overall business activity in Texas, and some illustrations of potential effects of more liberal policies of the type typically embodied in a free trade agreement and the implications of a free trade agreement for Texas.

II. Overview of the Mexican Economy

The Mexican economy has been struggling throughout most of the post-War era. This period was initially characterized by the instigation of many forms of protectionist regulation designed to foster the growth of various production

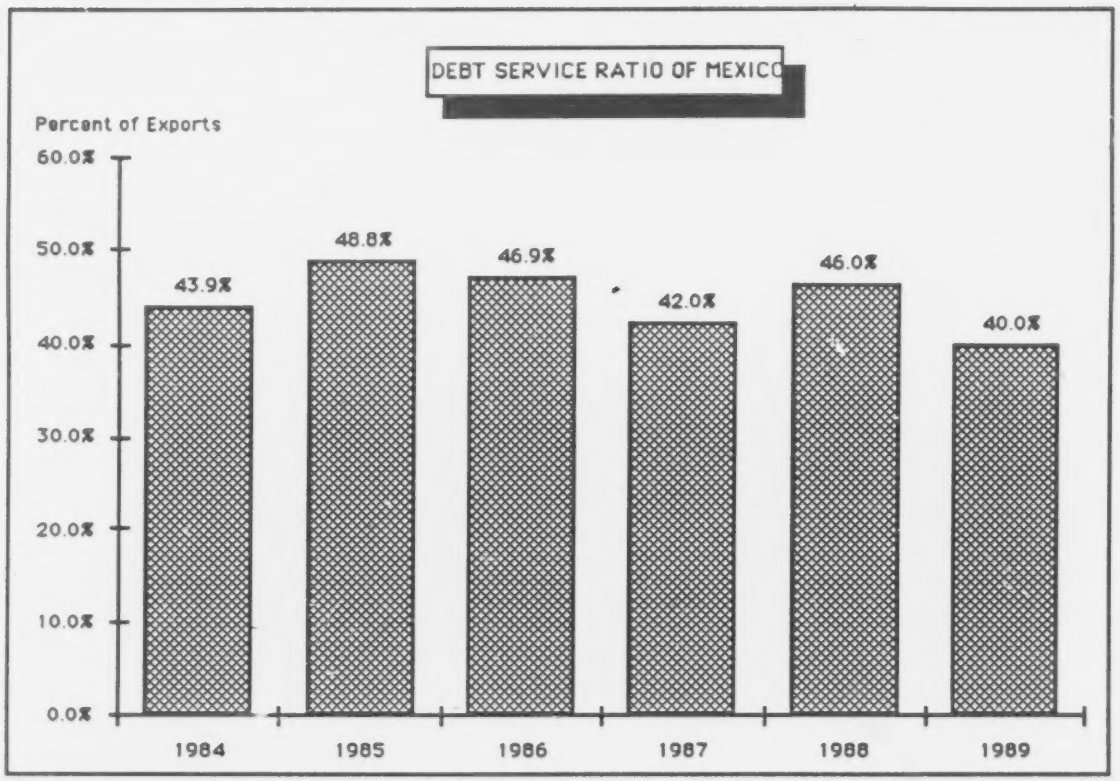


sectors. The government made a concerted effort to enhance the industrialization of the country by espousing the philosophy that protectionism was the most effective way to ensure the continued growth of the manufacturing components of the economy. The philosophy was based on the prevailing theory that the

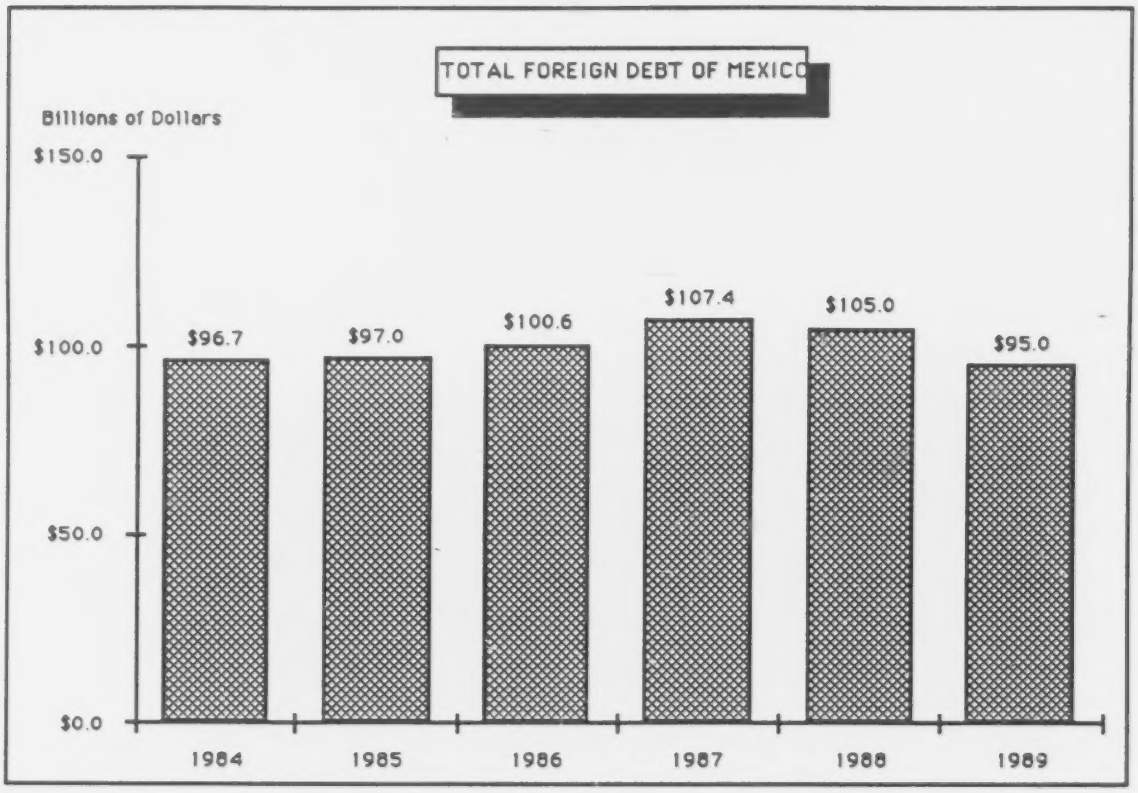
demand for manufactured products was likely to rise relative to the demand for primary goods (goods usually exported by developing countries) over an extended period of time. The notion further suggested that, to prevent a gradual decline in trade volume, a developing country should stimulate domestic production by restricting imports and subsidizing domestic manufacturing sectors. The resulting policies included (1) restrictions on direct foreign investment and ownership of assets, (2) arbitrary exchange rate controls, (3) nationalization of approximately 1,000 businesses and stringent regulation of many others, (4) subsidies for selected manufacturing industries, (5) limitations on access to foreign exchange, and (6) the imposition of highly burdensome tariff and non-tariff barriers to imports. These actions did contribute to the initial growth of the manufacturing sector, but also contributed substantially to the economic downturn experienced throughout the 1980s.

To establish reasonable working knowledge of the Mexican economy, a brief digression is necessary. During the early 1970s, Mexico began to amass a formidable national debt. It had borrowed heavily to support many protectionist programs and was eventually forced into the perpetual cycle of requiring additional borrowings simply to service the debt at current levels. From 1978 to 1982, the economy showed a steady increase in GDP of close to 8 percent per year. At first glance, this increase was credited to the "oil boom". A more careful evaluation, however, reveals that by mid-1981 the growth rates were being supported by abnormally high government spending and short-term borrowing from foreign financial markets. In fact, estimates of huge oil reserves and expectations of rising petroleum prices gave the country relatively easy access to major lenders in international credit markets. In 1982, a sagging oil market combined with other factors to bring a year of reckoning for the recent short-term mentality. In February, the first of three massive devaluations of the peso occurred. The economy also endured inflation rates of almost 100 percent. This pattern would repeat itself during the oil price collapse in 1986. Some of the more noticeable annual price changes of this period include gasoline (336 percent), potatoes (289 percent), avocados (143 percent), instant coffee (113 percent), and electricity (113 percent).

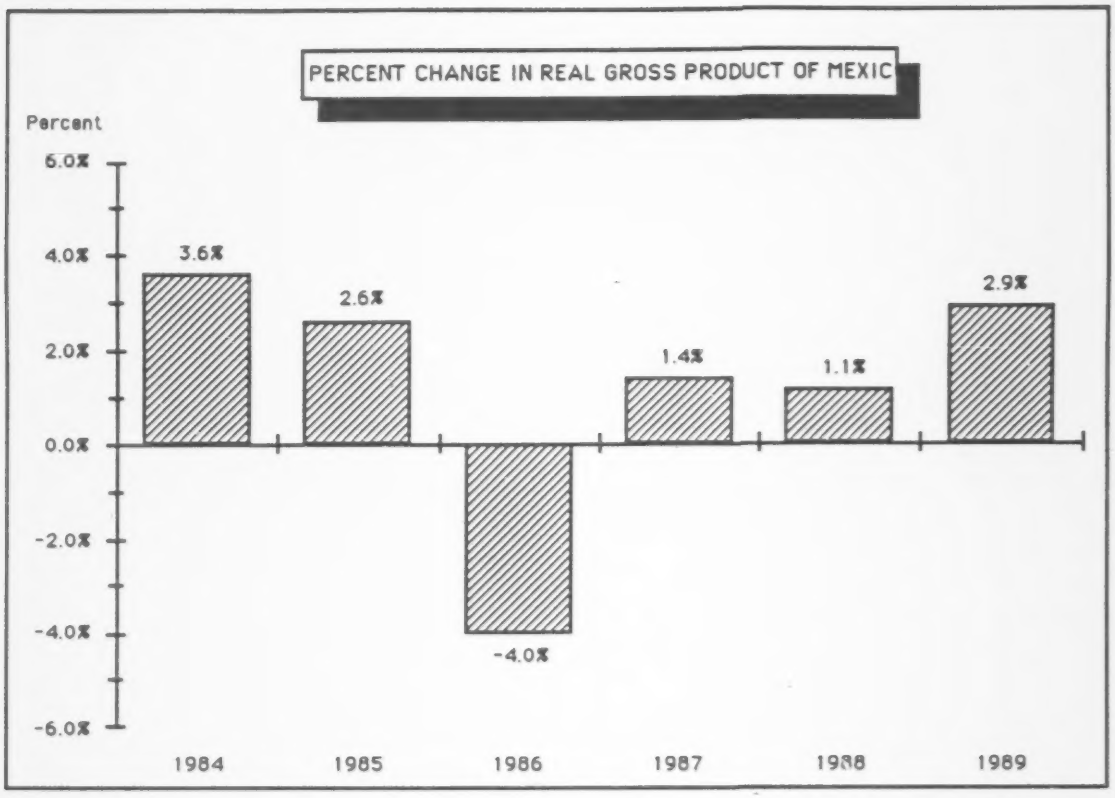
In 1982, Mexico also weathered reduced oil prices, wage increases, bank nationalization, exchange controls, capital flight and increasing unemployment. The country had accumulated $86 billion in debt and in August of that year announced that it would suspend payment unless additional assistance was obtained. At this point, Mexico negotiated with the International Monetary Fund (IMF) for further aid. The economy continued to limp along until 1984, when a brief expansion was experienced. However, the economy slowed once again the very next year. In fact, 1985 and 1986 saw several more crippling catastrophes, including a devastating earthquake and a dramatic decline in world oil prices.



The ability of Mexico to service debt is directly related to the price of oil, so much so that the present terms of payment negotiated with the IMF are "indexed" to the price of oil. Consequently, the loss of production in the manufacturing sectors (as a result of the earthquake) combined with oil prices plummeting from nearly $25 per barrel in August 1985 to just under $9 per barrel one year later brought economic growth to a halt. Once again in 1986, Mexico negotiated new financial agreements with the IMF, the World Bank, and its commercial bank creditors. These agreements came only after the government agreed to major concessions in the country's economic and trade philosophies. These reforms included the liberalization of allowable foreign investment, tax reform, divestiture of certain parastatal enterprises, and the reduction of tariffs and non-tariff trade barriers. The years from 1987 through 1990 have been characterized by intense efforts on the part of Mexican leaders to cope with the mammoth public debt. The total indebtedness of the nation soared from a mere $26 billion in 1976 to $86 billion in 1982. As a percent of GDP, debt reached an all-time high in 1986 of nearly 78 percent, with the total debt peaking in 1987 at $107.4 billion. As of 1987, the United States was creditor to $30.9 billion of these liabilities.



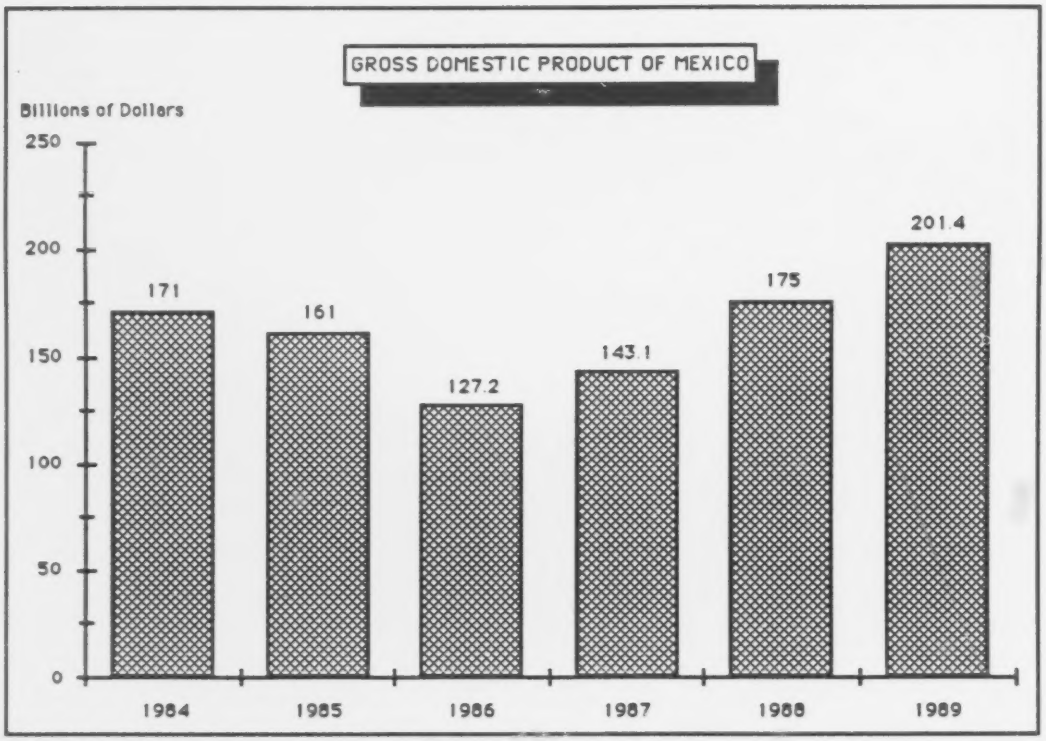
Fortunately, the reforms have had a significant positive effect, as is evidenced in the performance of the economy pursuant to these agreements. Following a 4.0 percent decrease of real GDP in 1986, output increased by 1.4 percent in 1987. Continuing this trend,GDP rose by 1.1 and 2.9 percent in 1988 and 1989, respectively. The fiscal deficit decreased from 1987 to 1989, while the inflation rate decreased from nearly 160 percent in early 1988 to under 20 percent in 1989. The economic performance of late has partially restored the confidence of investors, both foreign and domestic, in the future of the Mexican economy. Given the current developments in trade negotiations and the apparent eagerness of Mexican officials to participate in the global economy, it appears likely that a free trade agreement will move forward.



III. A Summary of Developments in Mexican Trade Philosophy

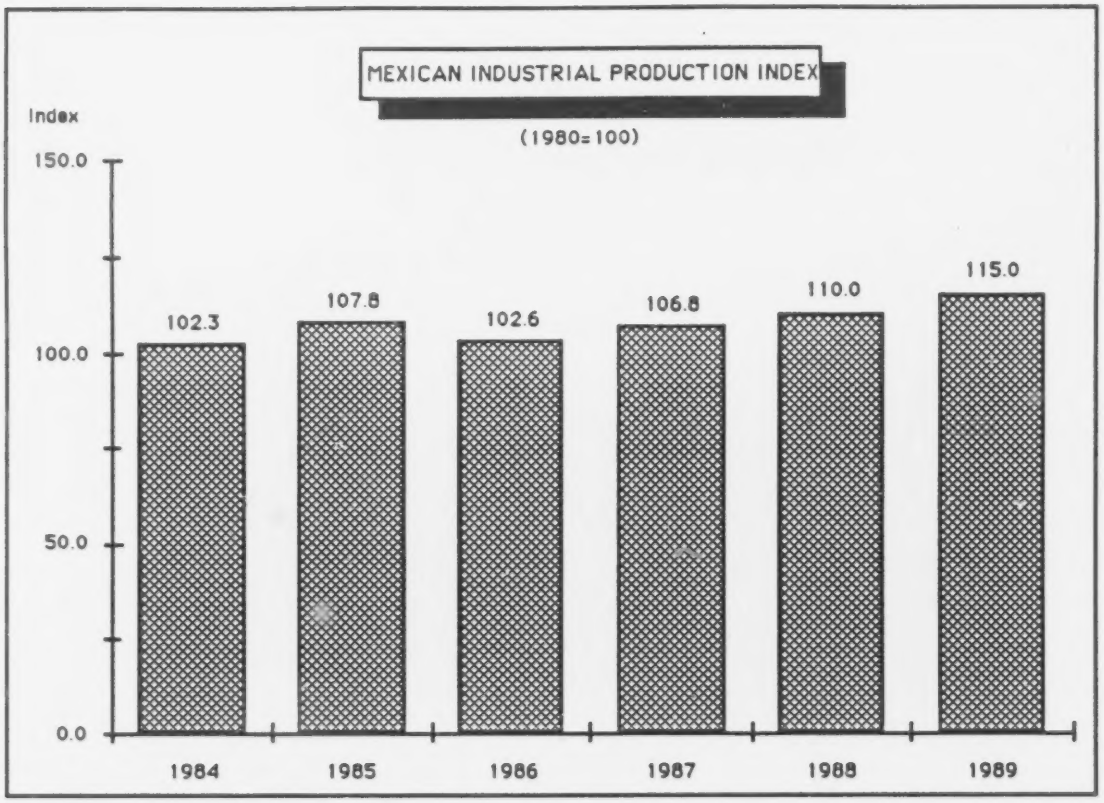
The 1980s proved to be among the most tumultuous years in the entire history of the Mexican economy. Although the policy of import substitution by severe protectionism did, in its early stages, serve as an incubator for the fledgling industrial and manufacturing sectors of the economy, the corresponding adverse effects on global competitiveness were realized in the 1980s. To better understand the gradual evolution of the prevailing economic thought that has resulted in the country's eagerness to liberalize its trading policies, a brief summary of the events leading to the present stage in trade negotiations is appropriate.

Certainly, Mexican leaders have, for the most part, had the health of the nation in mind by enforcing the stringent trade policies. The most significant industries in Mexico have largely been controlled by the government during the post-War period. Companies such as Pemex (petroleum) and Telmex (telecommunications) are owned directly, while others are so heavily regulated



that they cannot be appropriately classified as private business entities. This restrictive environment served to strengthen certain industries within the domestic market, but also contributed to the gradual erosion of their international competitiveness. As this situation progressed, it only further impeded the already impaired efforts to service the national debt. This development has been the primary catalyst driving recent trade reforms, both through internal policy and requirements of debt restructurings.

The road to Mexico's current trade position has been relatively short. In 1979, Mexico made its first efforts to improve trade relations by announcing an intent to join the General Agreement on Tariffs and Trade (GATT). This decision was subsequently rescinded due to internal political and economic turmoil. Six years later, trade negotiations that would eventually be successful were initiated and, in August of 1986, Mexico became the 92nd Contracting Party of GATT. At

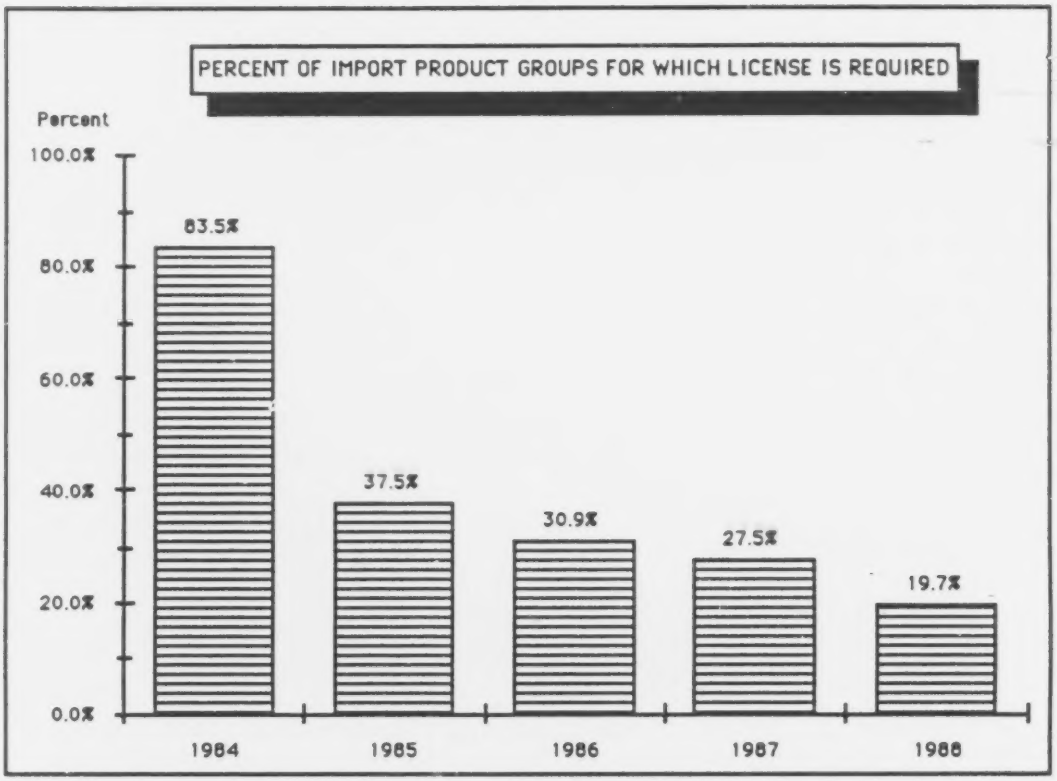


this point, the nation's trading posture began to change rapidly, far faster than most analysts anticipated. In fact, the 1987 Framework Understanding went far in liberalizing trade regulations between the United States and Mexico. From 1987 to 1988, Mexico participated in the Tokyo Round and agreed to sign five Tokyo Round Codes, including licensing, customs valuation, antidumping, standards, and subsidies. By the beginning of 1988, the first four of these Codes had been signed, while the fifth has yet to be completed.

In 1989, the Understanding Regarding Trade and Investment Talks established a forum for industry-specific and cross-sectorial negotiations, with standards and petrochemicals being slated as the initial subjects of discussion. Mexico is continuing to actively pursue similar dialogues, despite the substantive changes that have been encouraged by the United States. The entire infrastructure of the Mexican economy is presently being reviewed and reformed, a process that must occur before Texas and U.S. investment can take place on a large scale. Deregulation has been completed or is presently underway for about 25 industries. Sectors of particular interest to Texas investors include telecommunications, petrochemicals, insurance, the financial system, and agriculture. From 1982 to 1990, the government of Mexico has either finalized or

authorized the divestiture of just over 800 business enterprises, indicating a commitment to their present initiatives on a permanent and ongoing basis.

In conjunction with the significant restructuring of the economy, Mexico has made substantial reductions in tariff and non-tariff trade barriers. Since 1986, Mexico has reduced the maximum import tariff rate from 100 percent to the current level of 20 percent, while the approximate trade-weighted average has plummeted to only 11 percent. During the same time period, the number of items subject to an import permit, which is often a formidable impediment to a successful transaction, were drastically reduced from virtually 100 percent to about 3 percent. Although many of the items still regulated are of particular interest to Texas, such as oil and related products. electronic equipment, and



certain agricultural products, the prospects for further liberalization within these industries seem encouraging.

In light of the aforementioned events, the prospects for the future of profitable opportunities in Mexico continue to improve. The present pace of the trade talks indicates that, even in the event a free trade agreement (FTA) is not established in the immediate future, the liberalization of trade between the United States and Mexico will continue. In the next section of this report we will briefly

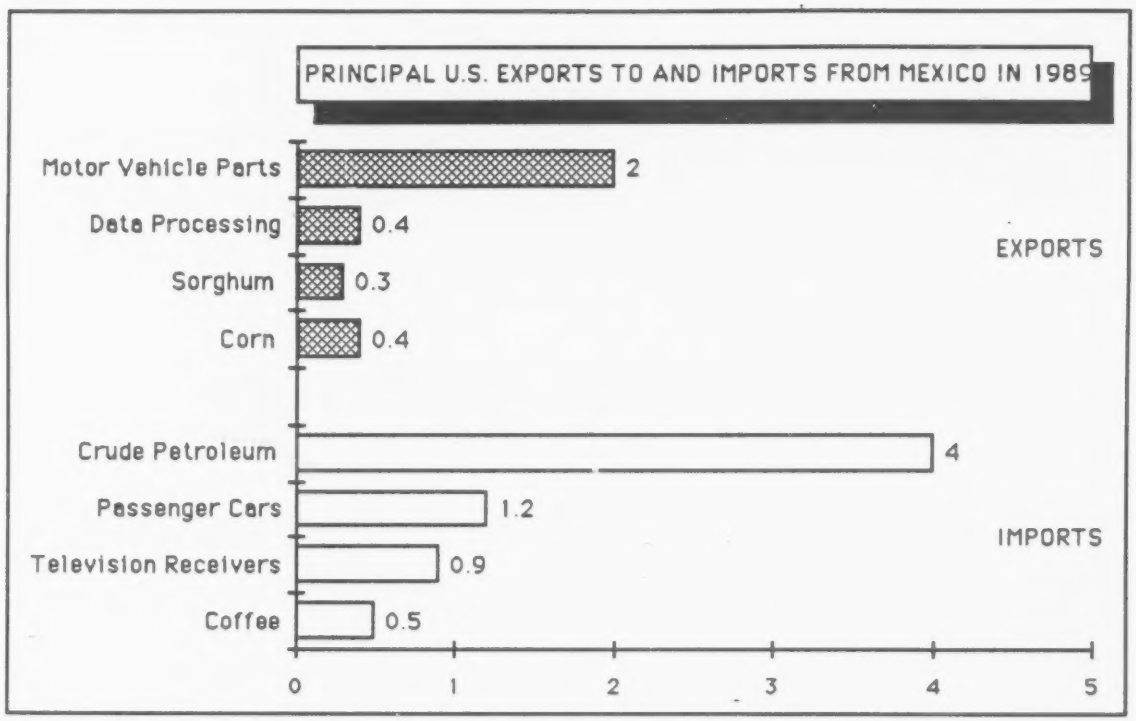
discuss the prognosis for three key industries that will be impacted by trade policy.

IV. A Review of Three Principal Export Industries

A. Agriculture

The agricultural market represents a significant portion of the trade, as well as the conflict, between Mexico and the United States. The subsidizing of farm products by the two countries, quotas, seasonal limits, and high tariffs are but a few of the elements that combine to create the most controversial portion of the negotiations regarding a free trade agreement. Mexico is the third leading importer of U.S. agricultural products and the second largest supplier of foreign agricultural products to the United States, with the value of 1989 bilateral trade approaching $5.4 billion. Given these parameters, the importance of this market to the U.S. and Texas becomes apparent.

Many objections to a free trade agreement have been raised on both sides of the Rio Grande, but for varying reasons. The groups in the United States that are most adamantly opposed are those within the most labor-intensive sectors of agricultural production. These primarily include vegetable, fruit, and nut growers and processors, whose products comprise some of the most heavily imported goods. Given the abundance of low-cost labor in Mexico, they argue that Mexico already enjoys a substantial advantage over domestic producers. In addition, Mexican growers are not as encumbered by environmental regulations and labor laws. Conversely, the Mexican growers are most threatened by the absence of economies of scale and the lack of technological expertise. The present system of farming, especially for grains, relies predominantly upon small, highly subsidized farms. More than half of the arable land is under the *ejido* system. This mechanism, which is a firmly entrenched way of life for a large portion of the population, consists of small communities collectively owning and operating parcels of land. Conventional wisdom suggests that, to even begin to compete with the U.S. sector, the entire agricultural system must be overhauled, thus requiring massive socioeconomic restructuring and financial investment. A related sector that stands to benefit greatly from such an agreement, irrespective of labor concerns, is the domestic agricultural equipment industry. Assuming the financial system is revamped and the foreign investment rules are further liberalized, the demand for state-of-the-art farming and processing machinery will be enormous.



B. Telecommunications

The telecommunications equipment industry stands to gain substantially with the elimination of trade restrictions. Mexico's efforts to modernize many sectors of its economy and to improve the ability of domestic industries to compete in global markets necessitate a substantial influx of sophisticated technology from a variety of sectors. Telecommunications equipment and services are among the most important of these areas, given the present state of the Mexican telecommunications system, the potential service requirements of 84 million people, and the need to link with an international communications network.

In 1988, the United States exports to Mexico were $78 million, which comprised 60 percent of Mexican telecommunications equipment imports. The total Mexican market for this equipment was only $500 million. Mexican imports to the United States were valued at $138 million, which amounted to only 2 percent of U.S. imports of telecommunication equipment. Mexico was the second largest market for U.S. exports from this sector, trailing only the United Kingdom in total purchases. Given the magnitude of the market, even in the face of a severe protectionist environment, and the obvious need for network modernization the potential for improvement is obviously immense.

The telecommunications market in Mexico has been dominated by two state-owned companies, Telefonos de Mexico (Telmex), which operates the public telecommunications network, and Telecommunicaciones de Mexico (Telecomm), which manages the existing satellite/microwave systems. Not surprisingly, the government implemented numerous regulations designed to protect its interests, including stringent local procurement requirements, tariff and non-tariff barriers, and inner-market restrictions. Both companies purchased the majority of their equipment from local entities, while imposing substantial levies on imported products. The tariff charged on telecommunications equipment is 20 percent—the maximum allowed under current international arrangements. Other barriers encountered by Texas and other U.S. exporters are related to product standards and burdensome compliance restrictions. The most notable of these obstacles are (1) the requirement that tests be performed in Mexico to be valid and (2) the enforcement of higher acceptance standards for imported equipment than those established by the Federal Communications Commission (FCC).

The most significant new development in expanding this trade opportunity is the Mexican government's plan for partial privatization of Telmex. In the first part of 1990, the announcement was made that 20.4 percent of the company would be sold to the private sector—foreign or domestic. However, the new owners will be required to begin the expansion and modernization of the system almost immediately. The government has mandated that at least 50 percent of the outdated local telephone centers be replaced within the first five years and is calling for the number of lines to be increased from 5 per 100 people to 20 per 100 people by the end of the century. Telmex is projecting that, by 1994, the number of lines will rise from 4.2 million to 8.3 million, at an estimated cost of $9 to $14 billion. Other major enhancements include a digital overlay network, radiotelephone cellular systems, and several major fiber optic links across the country.

Fortunately, the regulations governing foreign investment in the telecommunications market have already been liberalized substantially and the trend appears promising. Foreign investors are now permitted to own up to 49 percent of a Mexican telecommunications service provider and 100 percent of a telecommunications manufacturing facility. According to the U.S. Department of Commerce, one telecommunications analyst has estimated that the Mexican market will increase by about $1.5 billion as a result of the free trade agreement and the desire to upgrade the system. Since the Texas telecommunications equipment industry is growing rapidly, a trade agreement could provide ample opportunity for expansion. An illustration of the specific potential impacts of an FTA on this industry are discussed in more detail later in this report.

C. Computers

The prospects for the future of the computer industry in the event of a free trade agreement are equally as promising as those in the telecommunications equipment sector. The primary component in the modernization process is the continued mechanization of Mexican commercial and manufacturing activity via the application of computer technology. In view of the current status of the majority of Mexican computer equipment and the compelling need for more advanced systems, the effects of more liberal trade policies on this sector are extensive and potentially long-lived. As the Mexican economy matures, service markets may also be established.

A recent survey of Mexican manufacturers indicated that 65 percent of the industry plans to modernize in the immediate future, while an estimated 70 percent of the technologies now in use are obsolete. In 1988, the total market for computer-related technology was $678 billion, up from $478 billion in 1987. This sector is conservatively estimated to grow at an annual rate of over 18 percent, even without the implementation of a free trade agreement. Until recently, trade in these goods has been highly regulated in hopes of stimulating the growth of local technology manufacturers. Firms interested in exporting goods to Mexico were required to register with the government, obtain individual licenses for virtually every product, and negotiate acceptable levels of domestic sales, local purchasing, employment, and research and development. These goods were also subject to high tariffs and unfair official pricing strategies. Given that Mexico spends only 0.6 percent of its total GDP on research and development (compared to 2.5 percent in the United States), the progress within this industry has been understandably slow; sales of domestically manufactured computer equipment amount to only 30 percent of the total market.

Recently, substantial progress in the liberalization of trade barriers for computer equipment has been accomplished. In the first part of 1990, the Mexican government eliminated import permit requirements and standardized the tariff schedule. Presently, the tariff on finished computer products is 20 percent, the tariff on parts and components is 10 percent and the tariff on scarce inputs is 5 percent; the corresponding U.S. import tariffs range from 0 to 4.9 percent. In 1989, the United States exports to Mexico were $560 million, only 3 percent of the total U.S. export market, while U.S. imports amounted to $740 million. The majority of these imports are from maquiladora operations.

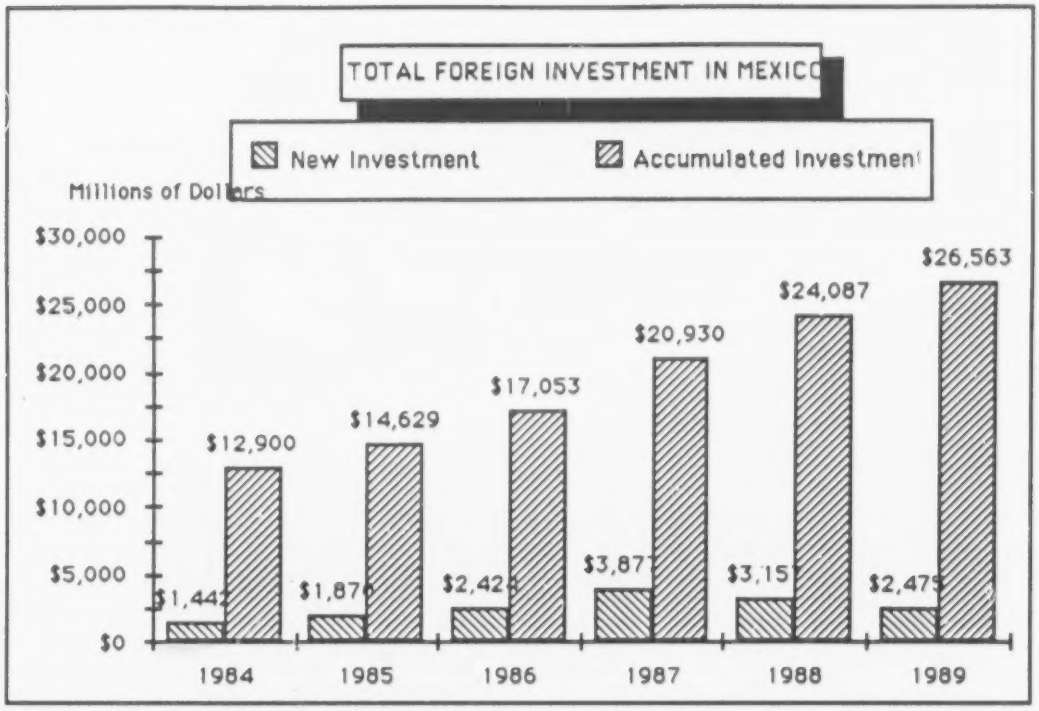
Considering the need for massive purchases of sophisticated computer equipment and the recent liberalization in allowable levels of foreign investment, the potential sales growth for American producers is enormous. The U.S. market share of Mexican imports is already an impressive 75 percent for computer systems and 83 percent for peripherals and software. Texas manufacturers and distributors should be actively pursuing a place in the Mexican markets prior to the implementation of an FTA, as this region offers promising opportunities for significantly enhancing sales and production within the state.

V. Recent Foreign Investment Regulations and Initiatives

The amount of foreign investment in many developing countries, even to date, is relatively insignificant when compared to the massive amounts of foreign holdings dispersed among the various developed countries. The reasons for this phenomenon are multifaceted, but the most obvious cause is directly related to risk. Given the typical problems of volatile political environments, breaches of personal liberties, underdeveloped financial markets, and other industry-specific concerns, these nations typically are less attractive for capital expenditures than the more industrialized regions of the world. Mexico has at times been plagued by most of these difficulties, but in the past decade has experienced significant improvement.

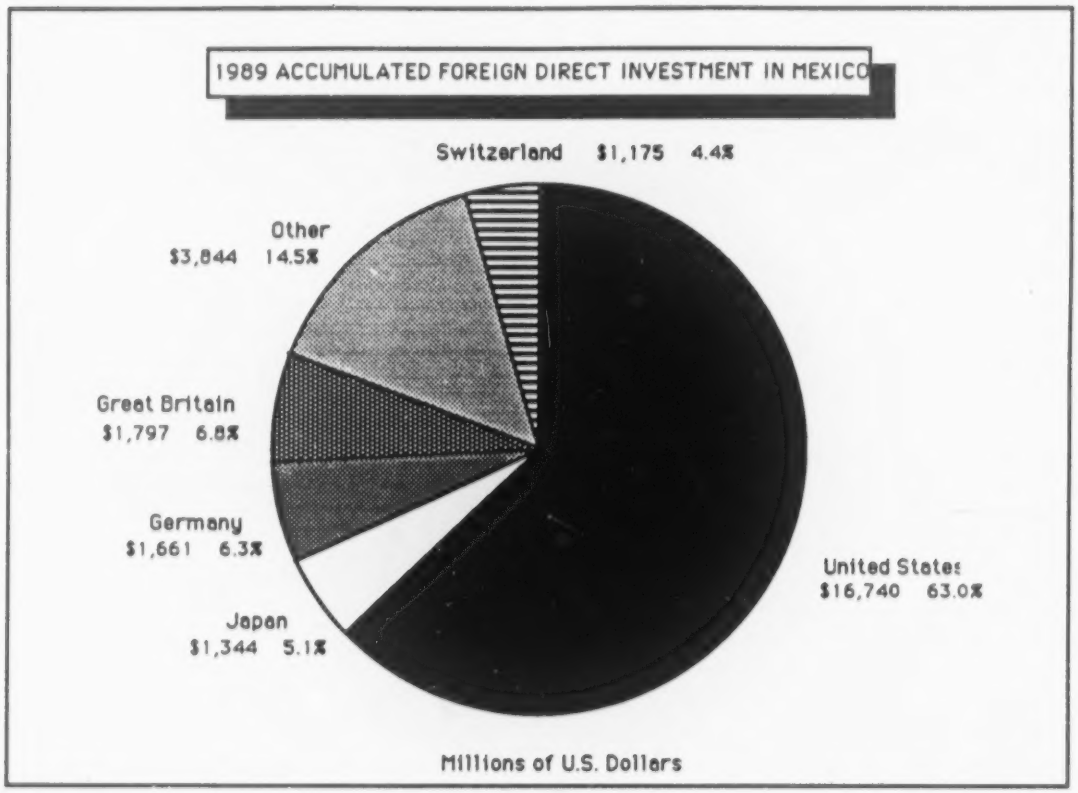
The first year in Mexican history to witness direct foreign investment was 1876. During the following forty years, the cumulative amount of foreign investment reached $1.4 billion, primarily concentrated in mining and utilities. However, this beginning was largely squelched by the revolutionary period. The next 60 years were characterized by restrictive foreign investment policies. In the 1930s, the Mexican government nationalized and expropriated many foreign-owned enterprises in key industries, such as mining, railroads, and agriculture. This practice continued until the 1970s. In 1973, the Law to Promote Mexican Investment and Regulate Foreign Investment (LFI) was enacted. This legislation codified all regulations of foreign investment and classified all types of goods and services into either (1) activities exclusive to the Mexican government, (2) activities exclusive to Mexicans or corporations with an exclusion-of-foreigners clause in their articles of incorporation, (3) activities in which foreign investment is subject to specific percentage limitations, and (4) all remaining activities. Of these categories, the maximum percentage of foreign ownership allowed was 49 percent. The National Foreign Investment Commission (CNIE), an authorization agency empowered to make exceptions to existing regulations, was then established to evaluate the percentage of allowable ownership according to seventeen different criteria. A summary of these guidelines would likely read, "if it significantly benefits most sectors of the economy, the percentages will be higher." In 1982, the government nationalized the commercial banking system, thus further impairing foreign investment incentives.

Material advances in the regulations governing foreign investment were finally accomplished in 1984. In a reaction to the mounting economic problems facing the nation, the CNIE created the Guidelines on Foreign Investment and Proposals for its Promotion. In a nutshell, these Guidelines were designed to promote foreign investment in industries that would create positive foreign exchange balances, enhance technological and scientific progress, and



strengthen global competitiveness. The Guidelines also specifically sanctioned majority foreign ownership in 33 activities categorized by nine industrial areas, but did not eliminate other possibilities.

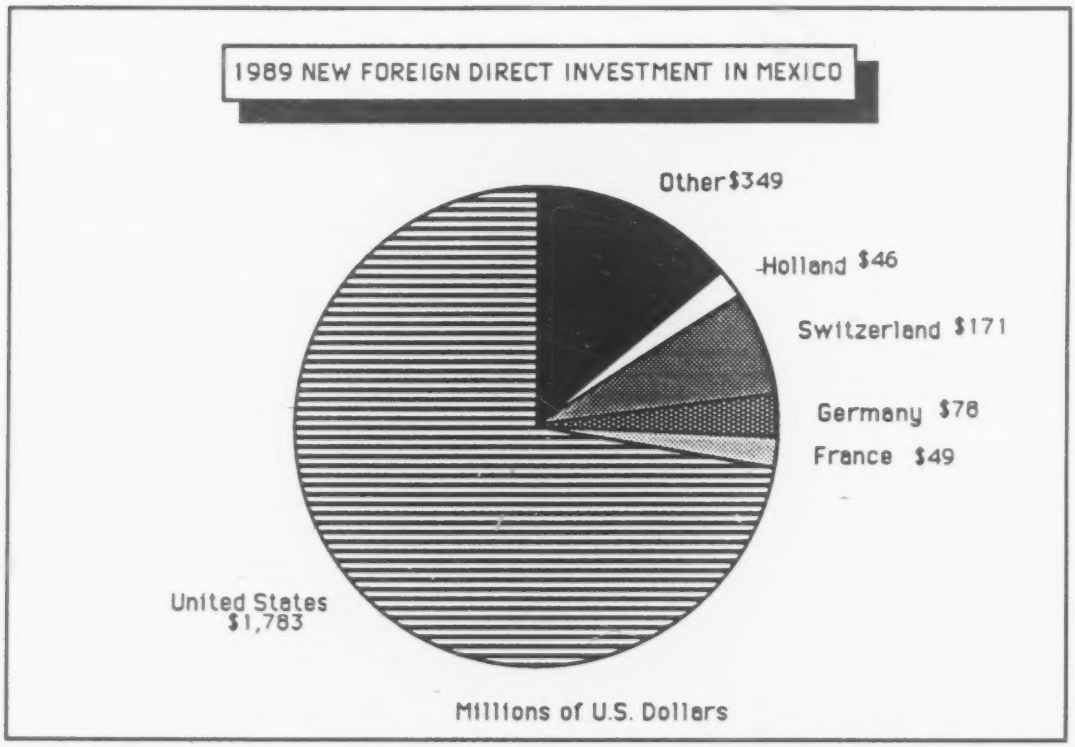
Several other resolutions were subsequently passed, one of which eased the limitations on foreign investment in small business enterprises. This resolution stipulated that these firms (1) could not have annual net sales in excess of $8 million, (2) could not employ more than 500 or less than 250 persons, (3) must export a minimum of 35 percent of annual production, (4) must maintain a surplus on their import-export accounts, and (5) abstain from operating in the service and retail sectors. By 1988 the restrictions had been relaxed even further, allowing foreign investors to acquire 49 percent of a Mexican company without the prior approval of the CNIE. Additionally, companies already 49 percent foreign-owned could expand their external composition without approval. In 1989, the Regulations of the Law to Promote Mexican Investment and Regulate Foreign Investment was established. This initiative repealed all provisions regulating foreign trade and proposed a more liberal interpretation of the LFI. Basically, it simplified foreign investment



requirements by creating concise rules governing the process. The following is the list of pursuits governed by foreign investment trade restrictions:

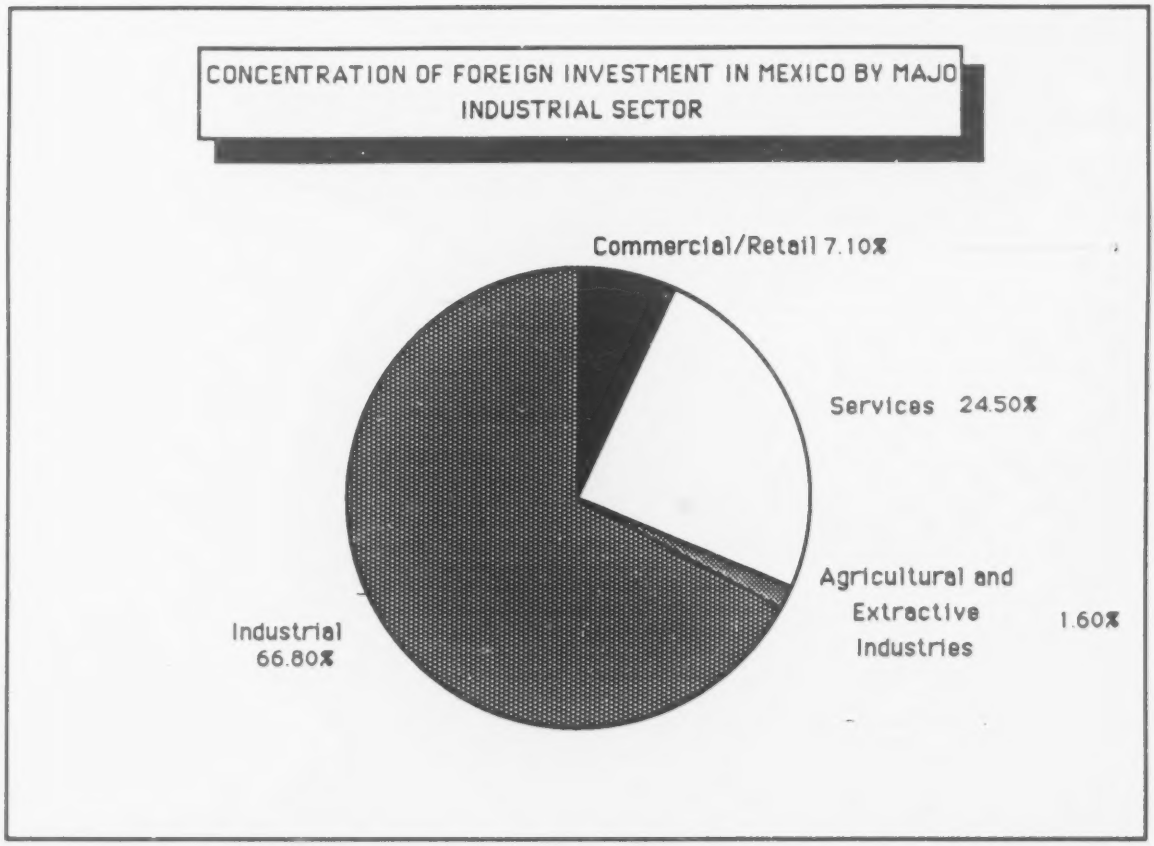
1. activities reserved to the state (e.g., petroleum);
2. activities reserved to Mexicans (e.g., radio and television);
3. activities subject to a 34 percent limit (e.g., banking);
4. activities subject to a 40 percent limit (e.g., secondary petrochemicals);
5. activities subject to a 49 percent limit; and
6. activities in which foreign investment is allowed up to 100 percent with prior CNIE authorization.

These rules apply only to industries that have percentages specifically required by law. The remaining industries may be 100 percent owned by foreign investors, but must file a formal request with the CNIE. Even this provision may



now be circumvented if the transaction meets another list consisting of six criteria.

These reforms and others have begun to pave the way for a free trade agreement. As President Carlos Salinas de Gortari recently said, "We are a mature country, with the intellectual, legal and economic capacity to absorb a greater flow of foreign investment for the good of all the Mexican people, without compromising our sovereignty or freedom of action. For this reason we will take measures to selectively encourage foreign investment able to assist towards the objectives of our economic strategy." This basic attitude is characteristic of the new environment in which significant movement toward a free trade agreement can occur.


CONCENTRATION OF FOREIGN INVESTMENT IN MEXICO BY MAJO INDUSTRIAL SECTOR
Commercial/Retail 7.10%
Services 24.50%
Agricultural and Extractive Industries 1.60%
Industrial 66.80%

The making of a sound investment decision of any sort inevitably requires a careful evaluation of the risks versus the expected returns. When considering a foreign endeavor, the difficulty of assessing the underlying uncertainty is compounded by the numerous political, social, and economic considerations. The current movement toward more open economic relations with Mexico should serve to continue the trend toward enhanced opportunities for profitable business ventures.

VI. The Economic Impact of Current Exports to Mexico on the Texas Economy

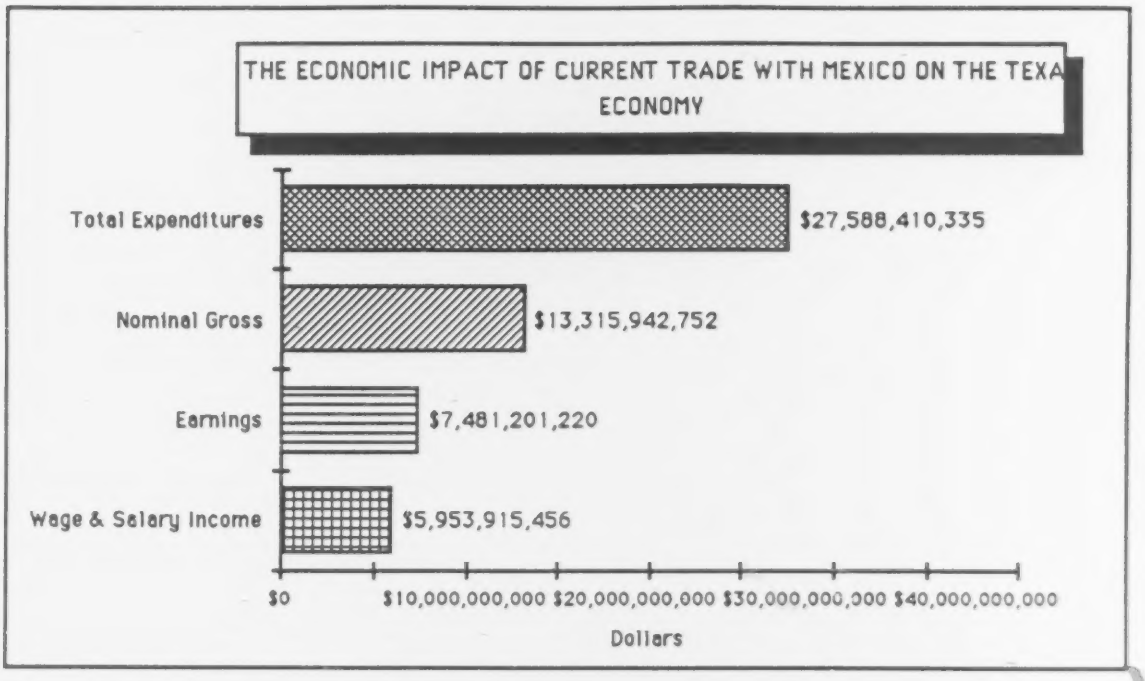
The remainder of this report summarizes the results of several detailed analyses of various aspects of the trading relationship between Texas and Mexico. Texas exports almost $10 billion of goods and services to Mexico on an annual basis. In order to determine the economic impact of this activity, Perryman Consultants initially obtained data from the Texas Department of Commerce regarding the most current estimates of the volume of goods produced in Texas

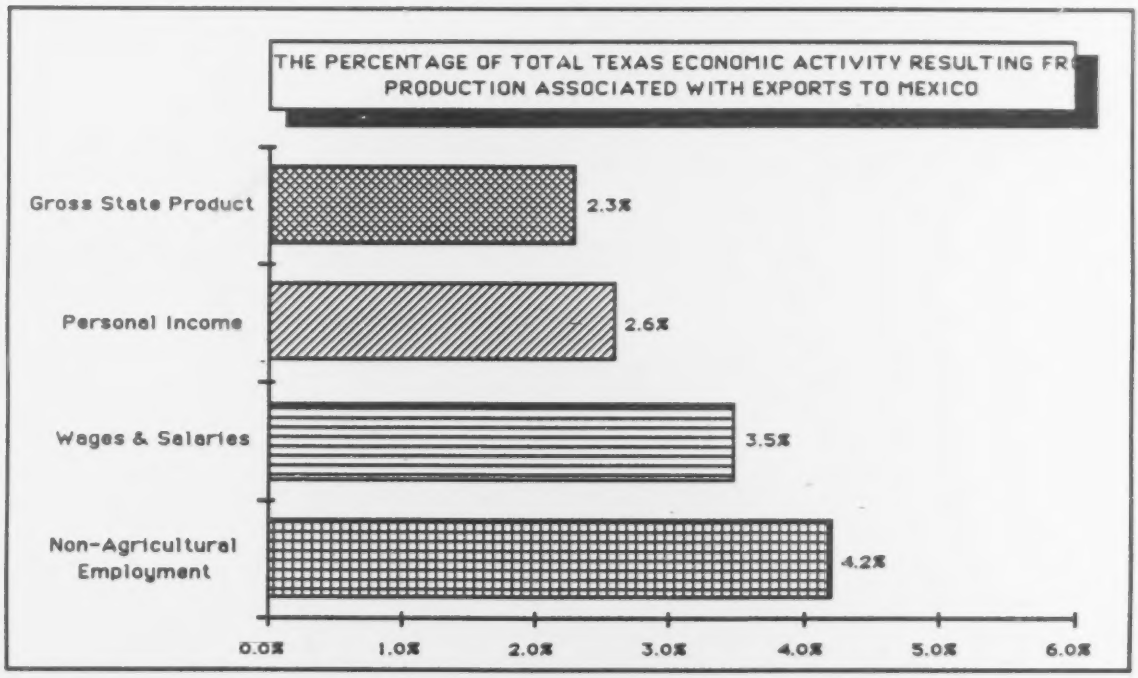
that are shipped to Mexico across all industrial sectors. This information was available at approximately the two-digit Standard Industrial Classification (SIC) level. This production was then translated into more disaggregated industrial categories through an analysis of (1) aggregate shipments to Mexico from the United States within each individual sub-sector and (2) the productive capacity of the state with regard to each production category. Once this allocation process was completed, the resulting estimated sectoral composition of Texas exports of goods and services to Mexico was categorized into the classification system of the Input-Output Model of the United States. The resulting data were then used as input information for a comprehensive assessment within the context of the Texas Multi-Regional Impact Assessment System, which was developed and is maintained by Perryman Consultants. This large-scale input-output model includes a spectrum of more than 500 industrial categories and reflects the unique composition of the state economy. It can also be readily implemented for any county or multi-county region in the United States. The system is employed in this instance to calculate the direct, indirect, and induced effects of production for export to Mexico on overall business activity in Texas.

The results of this analysis reveal that the more than $9.5 billion in direct private goods and services exported to Mexico bring an annual direct, indirect, and induced stimulation to the Texas economy of $27.6 billion in aggregate expenditures. The activity also accounts for $13.3 billion in gross state product, $7.5 billion in personal income, almost $6.0 billion dollars in wages and salaries, and more than 290,000 jobs. The total volume of business production supported by exports to Mexico represents 2.3 percent of overall output, 2.6 percent of personal income, 3.5 percent of wages and salaries, and 4.2 percent of employment. Obviously, the absolute and relative magnitude of these values is indicative of the tremendous impact that the Mexican economy exerts on Texas.

VII. Illustrations of the Potential Impact of a Free Trade Agreement on the Texas Economy

In addition to the impact of current trade on state business activity, it is useful to evaluate some potential effects of more liberal trading policies. For present purposes, two illustrations are developed, one addressing an export industry and the other a significant import sector. With regard to Texas production that is shipped to Mexico, some potential impacts are examined for the telecommunications equipment industry. As previously indicated, this market is extremely lucrative for further development if tariff and non-tariff barriers are removed. The potential size of this market is expected to grow from $500 million to $2 billion per year as a substantial modernization program is undertaken. This expansion will largely be met by importing equipment from other countries, as the sector has not developed the capacity to generate sophisticated equipment from internal sources. This gain of $1.5 billion is likely to be concentrated in the





United States, which presently provides more than half of all imported telecommunications equipment to Mexico.

In this example, it is assumed that Texas captures 7.5 percent of this market, or $112.5 million in direct spending. This level of potential expansion is quite conservative given both the proximity of Texas to Mexico and the rapid ongoing development of telecommunications equipment production within the state. The overall infusion to the state economy from this single change in trade policy would, under this set of assumptions, generate $385.0 million in aggregate expenditures, $202.1 million in nominal gross product, $114.9 million in personal income, $94.9 million in wage and salary disbursements, and more than 4,400 jobs. This assessment related to a single tariff provision offers a clear illustration of the potential value of a free trade agreement to manufacturers of various types of equipment in Texas.

As a second illustration, the impacts of removing import duties levied by the United States on televisions and related products imported from Mexico are examined with regard to their effects on consumer budgets. This assessment uses an extensive general equilibrium system developed by Perryman Consultants which integrates the complete results of the Consumer Expenditures Survey of the Bureau of Labor Statistics with a 500 sector input-output model designed to reflect the local industrial characteristics of a given region. In this instance, the impact on the state of Texas is examined. This structure has the capacity to evaluate any tariff change for any commodity for any geographic area within the country. It measures both direct and indirect impacts across seven different income categories.

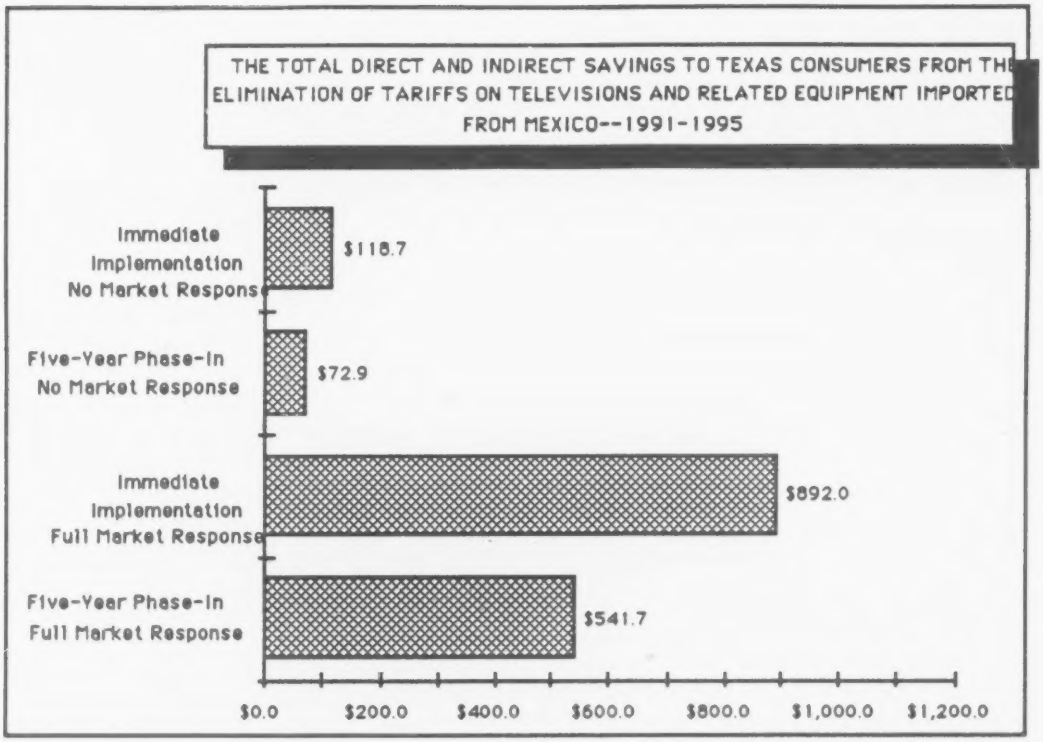
For present purposes, the following four cases are examined as potential tariff provisions and market responses:

1. Case One—The immediate elimination of this import duty in 1991, with no price response on the part of other suppliers in the market.

2. Case Two—The phase-in of the tariff reduction over a five-year period, beginning in 1991, with no response from other suppliers.

3. Case Three—The immediate implementation of the tariff, with full price response on the part of other suppliers.

4. Case Four—The implementation of the tariff reduction over a five-year period, with full response from other market participants to the resulting price reduction.



Over the period from 1991 through 1995, Texas consumers save a total of $118.7 million under the assumptions of Case One. The corresponding savings from the gradual reduction incorporated in Case Two is $72.9 million. Assuming that other suppliers respond with corresponding price reductions, the overall benefit to Texas consumers over the five-year period is $892.0 million if tariffs are eliminated immediately. In Case Four, the savings total $541.7 million. The percentage effect on household budgets generally rises in the low to middle income categories. Upper middle class residents receive the greatest percentage impact, with the more affluent seeing a smaller overall effect. The aggregate volume of these savings is, even under conditions of no response by other suppliers, quite substantial. Once again, it illustrates the potential effects of a single change in tariff provisions on business activity in Texas.

VIII. Synopsis

This study seeks to provide a relatively comprehensive evaluation of some key issues related to expanding trade opportunities between Texas and Mexico. The analysis includes an extensive discussion of the evolution of trade policy and a realistic assessment of current investment risks and opportunities. It also illustrates the results of an extensive modeling effort to examine the tremendous

impact which Mexican-Texas bilateral trade exerts on the business activity of Texas. As a final segment of the investigation, illustrations are provided of the potential impact on the state of changes in tariffs levied by Mexico on Texas goods and domestic tariffs levied on imports from Mexico. In both instances, the aggregate effects on the state can indeed be substantial.

Mexico is Texas's immediate neighbor to the south and largest trading partner. The economy of Texas is intertwined with that of Mexico in many ways. As the state continues its development of technologically oriented production and Mexico seeks to modernize its industrial complex, this integration can only be expected to increase. With the catalyst of additional openness in trading patterns, the Texas-Mexico linkage can serve as a formidable force of mutual benefit for competition in the larger global marketplace. In recognition of this fact and the dynamic nature of the current negotiations, Perryman Consultants has developed a sophisticated set of models that can examine impacts by industry (over 500 sectors), consumer purchasing category (approximately 60 categories), income level, and geographic area. These systems are complex and can be implemented for any area of the country. In fact, they can also be applied to changing trading patterns with countries other than Mexico. Through this extensive research process, the firm is positioned to assist corporations throughout the country in maximizing opportunities for increased participation in the international marketplace.

V. Mexican Perspectives

"Free Trade: Considerations for Policy, Education, and the Binational Borderlands"

Perspectives from the
Center for Socioeconomic Research at the Autonomous University of Coahuila,
El Colegio de la Frontera Norte,
and the
Center for the Study of the United States at the Autonomous University of Mexico

Perspectives from the Center for Socioeconomic Research at the Autonomous University of Coahuila

Mario Dávila Flores

Due to the fact that the level of economic development in the U.S. is notably higher than in Mexico, as a key framework in the free trade negotiations our country must be given by the U.S. favorable treatment, so that both countries can have a solid ground upon which this form of economic integration can yield positive results.

The implementation of the agreement should be made by steps leading to the elimination of barriers to trade in accord with a schedule defined very precisely.

During the past several years, Mexico has made radical changes in its economy, one of which has led to a greater openness of our markets to the rest of the world, lowering our tariffs noticeably. As a consequence of this our country has been buying at an increased amount goods and services produced in the U.S.

Mexico wants now a similar reaction by the U.S. by which that country lowers and eventually eliminates its tariffs and nontariff restrictions to trade, easing the exports from Mexico to the U.S. in the long run.

If this agreement is to have success, Mexico has to make very large expenditures in education and infrastructure, and since our resources are very scarce we need the financial support of the U.S. so that we can get access to credits either provided by the U.S. or obtained with the help of the U.S. from such multilateral agencies as the World Bank.

These two elements we regard with a very high priority, and to have a greater importance in the borderland.

We shall require also access to the technology that will enable our economy to improve. Another point of concern is related to the protection of the environment; in both areas Mexico has to be sure that things will work well.

Since the effects of this accord will transcend the economic sphere, efforts should be made in the cultural area to improve the levels of understanding and comprehension between our people, especially for the border population.

We recommend an increase in the interchange of ideas as a priority also. This could be done at various levels: in the government, business and academic communities, in the field of the arts, labor organizations, ecologists, etc.

We think in accordance with Keynes that expectations play a major role in economics. It is not necessary that the agreement be signed in order to feel its effects; they will come upon us with great force, so we need to think about and prepare for them. Otherwise, bottlenecks could interfere with free trade.

Perspectives from El Colegio de la Frontera Norte

Bernardo Gonzalez-Aréchiga
Eduardo Zepeda Miramontes

Less than two years ago the Mexican government was still insisting that formal economic integration between the United States and Mexico was not an item in the bilateral agenda. As events have evolved up to now it seems that there is a significant probability for a Free Trade Agreement to be signed relatively soon. Considering the rapid pace of events, it is not surprising that detailed studies are not abundant while the public remains uncertain about the scope and consequences of such an agreement. The Mexico-United States Borderlands, although constituting an area of intensive bilateral relations between the two countries, are no exception to the aforementioned lack of information and understanding about alternative scenarios and possible consequences of an FTA.

Five major propositions are included in the executive summary which we have been asked to comment on. First, it is recommended to establish an "expertly staffed" USA-Mexico Border Commission to serve as an "effective coordinating center" capable of addressing a wide variety of issues. Second, a comprehensive public information program is recommended. Third, segregation of non-trade issues from negotiations is advised, except for positive and proactive environmental considerations. Fourth, provisions to alleviate the adjustment impact of free trade i.e. a gradual adjustment approach and trade adjustment assistance measures (ear-marking value added tax revenues, for example) are deemed important. Fifth, finding ways for the infusion of additional foreign capital into the development of Mexico's considerable energy resources under the premise that Mexico should reasonably be expected to give assurances of continued access to energy, similar to those given by Canada in the United States-Canada Free Trade Agreement.

All of these recommendations relate directly to borderlands problems except perhaps for the last one which refers to energy or more specifically oil. Our comments will be also stated from a Mexican Borderlands perspective. However, before getting into matters we would like to express an opinion about the energy issue. Even though the United States-Canada Free Trade Agreement is an important point of reference it does not, in any manner, set precedent. Assuring a stable supply of oil is a national security consideration for the United States government, but it should not interfere with the sovereign decisions of another country in regard to the use of its strategic resources. It would be very

much like asking the United States to assure the transfer of capital and technology to Mexico where it is badly needed with the argument that in the United States it is an abundant resource. We fail to find any reason to justify the inclusion of such provision in the negotiations of a free trade agreement.

We do regard it is appropriate to establish some sort of USA-Mexico Border Commission to serve as a coordinating center. Although the severity of the problems being confronted would call for a more empowered body, past experiences and the sheer complexity of interests force us to settle for a less ambitious but more effective bilateral commission. Equally needed is a comprehensive public information program that would help to reduce the lack of information and contribute to the debate. It would also help to establish a similar effort in Mexican border states.

A deeper concern to us is the perceived need for special consideration to the dramatic differences in economic development between the United States and Mexico. It is under the light of these differences that we would like to set the scope for coordination in a bilateral border commission. Similarly, differences in development should be of primary concern while devising and implementing adjustment and compensatory measures.

The accomplishment of an FTA including Mexico and the United States carries the challenge of reducing the sharp differences in size, structure, and regulatory framework between these two economies. Moreover, one cannot overlook the fact that international trade practices as well as United States trade policies are far from approaching a model where relatively small businesses compete with each other in terms of price and efficiency. As much as international trade is dominated by intra-firm trade and free trade is precluded in industries where economic conditions would have advocated it, i.e. the Multifibre Agreement, there is a need to eradicate the misbelief that free trade negotiations would substitute for careful consideration to long-lasting problems. United States recent trade policy can hardly be regarded as neutral promotion of free trade as evidenced by its iterative and recurrent use of 'voluntary' export quotas--in automobiles and steel; its aggressive use of 'safeguards' and other non-tariff barriers. From a developing country's perspective a closer bilateral trade relation is only a second best alternative to a multilateral free trade framework. In the context of fierce and aggressive trade policies, a closer bilateral approach calls for compensating action from the rich country towards the poor country to match existing differences in economic strength and bargaining leverage. Similarly, negotiating border issues in the context of a general FTA is a second best alternative. The optimum alternative would have been to negotiate borderland issues separately taking advantage of GATT provisions. Finding solutions to the particular problems of this area would have benefitted from an enlarged and more intensive participation of their constituencies.

International trade has historically fueled economic growth. However, as much as distribution of benefits varies across different regions within a country, when two largely disparate countries engage in trade, gains are distributed unevenly between the two countries. Thereby, there is a need for close consideration and extensive incorporation of FTA clauses enhancing equity in the distribution of free trade gains. Careful attention must be paid to schedule the reduction of trade barriers with different timings according to country as a first and obligated step. A second very important step is to devise ways to even out the economic effect of disparities. Probably more important is to consider income redistributing measures at the international level similar to the proposed "truly effective trade adjustment assistance measures."

The Mexico-United States borderlands further complicate the asymmetries that pervade country relations. Cities across the border not only differ economically to each other in terms of income per capita or availability of services, but these areas have different weights and play different roles in their respective countries. The United States border is generally considered a depressed area, except for San Diego County, where local governments are likely recipients of net federal grant flows. Mexican border cities are, to the contrary, booming areas likely to supply net public funds to the federal government. Infrastructure in the Mexico-United States Borderlands needs a substantial allocation of capital if economic growth is to be sustained and the increased economic interactions that result from an FTA are to be accommodated. Again, available infrastructure sharply differs from north to south in terms of quantity and quality. As might be expected from a country under severe financial stress, recent economic growth in border cities did not include sufficient complementing investments in infrastructure. South of the border there are pressing needs for housing, water, sewage, transportation and general urbanization. Infrastructure deficiencies in northern Mexico have already impaired in several ways further economic growth and most certainly will in the near future. Bilateral coordination in these areas is most important. Commitments must be made by federal governments and international organizations to provide adequate financial resources. Both areas need generous funds to initiate growth in one case and rationalize economic activity on the other. However, their needs are different in timing and size; the Mexican side should take higher priority.

Although it would be difficult to think about the inclusion of other issues, an FTA does provide the opportunity to advance solutions to other bilateral problems. Major examples are comprehensive policies towards 'maquiladoras' including tax revenues and border crossings which we will address in turn.

Economic Development and Maquiladoras

Recent economic growth in Mexican border cities has certainly been impressive, particularly if contrasted with depression in the rest of the country. The main growth-propelling force has been the scarcely integrated export industry of the area. The 'maquiladora' industry currently represents around 500,000 jobs or 18 percent of the nation-wide industrial workforce, about 8 percent of total foreign currency revenues, and has grown at an annual average rate of 15 percent. However, the 'maquiladora' use less than 2 percent of locally produced inputs. An FTA would, most likely, encourage the establishment of more 'maquiladoras.' The challenge for Mexico is to accompany the FTA with bilateral agreements that would promote technology transfers, protect the environment, and allow Mexico to share the income tax generated by the industry which is currently collected by the United States government alone.

The maquiladora industry contributes to the production of goods whose annual taxable value in the United States has been estimated to be around 6 billion dollars. As Mexico does not participate in this tax revenue, it actually constitutes a form of subsidy from the low income country to the high income country. Badly needed infrastructure and public works will benefit from a bilateral tax agreement bringing back to Mexico a fair percentage of collected taxes. This is a much preferred alternative to the aborted unilateral attempts to establish a 5 percent tax on the wage bill or a 2 percent tax on assets. To reach a bilateral agreement of this nature will require setting aside the concepts of "cost center" and "transfer pricing" to regulate under more equitable basis tax collection on shared production.

Most of the maquiladora activity relates to the U.S. economy. However, there are also third party maquiladora plants operating in Mexico. An FTA barring these factories would be detrimental to employment and specially tailored adjustment programs should be devised to help reduce negative impacts.

Border Crossings

There is a notorious asymmetry in the relative access to markets across the border in relation to customs and immigration administrative practices. U.S. immigration policies are very selective concerning who can obtain a visa to enter that country. As it turns out, only about 50 percent of the urban population in larger Mexican border cities can go across the border legally. The effect of this policy is to create a captive market for those who are able to cross the border for consumption or business purposes with a negative distribution impact against lower income strata. Related to this issue is the fact that whereas persons and goods can now cross the border towards Mexico in a relatively short time, it takes substantially longer to cross the border towards the United States. The economic effect of these practices is clearly detrimental to free trade and discriminatory

against the Mexican economy. Captive markets are created and economic rents accrue to those in the position to participate in both markets. Additionally, cross-border economic interactions are inhibited by differential impacts according to the type of goods or services in question; those of Mexican origin affected the most. Admittedly, an FTA may somewhat reduce the economic impact of discriminatory policies. A wider range of goods will be available across the border. However, to the extent that substantial asymmetries remain regarding administrative practices at the border crossing points, segmented markets will exist with consumers paying the costs.

A coordinating commission should find ways to discuss these issues bilaterally so as to ensure that the economic impact of administrative practices and policies on cross-border economic activities is reduced to a minimum for both countries.

Finally, special attention should be paid to environmental concerns in FTA negotiations. Taking care of the environment is not by any means a "luxury" if we are thinking beyond a ten or twenty year horizon. Negotiating conditions for freer trade flows today amounts to be discussing the regulatory framework for longer term economic processes. The environment has been a source of bilateral disputes and represents an item in day to day bilateral relations. Along with infrastructure deterioration, the border also suffers from premature environmental decay which, by all means, further inhibits economic prosperity. With the clash of two worlds, the border faces both environmental pressures upon natural resources and unsafe waste disposal of imported materials as do many developing countries also do. The pledge to preserve the environment at the border cannot be overemphasized; international funds and resources for its preservation should have highest priority. The FTA should consider environmental issues along with ways to finance environmental preservation.

Perspectives from the Center for the Study of the United States at the Autonomous National University of Mexico

A Free Trade Agreement Between Unequally Developed Nations

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The intense world changes, as well as competition for international markets and their globalization, have led national economies to redefine their structure. At the same time, the tendency to create economic blocs presages new types of protectionism, and the prospect of remaining either outside them or isolated from them is at best unattractive.

The recent free trade agreement subscribed to by Canada and the United States accelerates these consequences in the case of Mexico. This is, in part, the reason why Mexico has seriously considered the negotiation of a free trade agreement with the United States and, probably, Canada. However, more than the solution to our economic problems, the decision to promote a free trade area with the United States is viewed as an inevitable response to the consolidation of economic blocs in Europe, the Pacific, and of course, the one previously described in the northern area of the Continent. Mexico cannot and should not lag behind world dynamics.

The problems that stem from a free trade proposal are numerous and varied, and the assessments of its potential effects are being conducted. Among other considerations, the economic inequality between the two possible partners is of great importance. This inequality is less remarkable in the case of the United States and Canada. It is useful to mention some aspects of this concern.

Canada ranks seventh among the industrialized countries. Until before the agreement its economic growth rate was high and although economic development had been uneven, after price increases for fishing, forest, mineral, and oil products, the sectors and regions developed according to a more stable pattern. The large growth of services, measured both by the proportion its employees represented by the service sector (over 70 percent) and by the exports accounted for by this sector, is a relevant feature.

On the other hand, great disparities are found in the Mexican economy as compared to the United States. After undergoing a severe crisis, Mexico has

reached a steady average growth of over 2 percent, with considerable differences within regional and sectoral development. The primary sector still employs around 40 percent of the working population. Moreover, Canada and Mexico are in many ways competitive, since both nations offer, or rather are able to offer, similar advantages such as lower wages than the U.S., certain agricultural products, manufacture of auto-parts, and electronic assembly, among others.

A feasible and beneficial agreement should therefore envision complementary interests which reduce the chance of conflicts between the different partners and enhance comparative advantages. All this will occur within a scenario characterized by pronounced differences which are not only of a cultural and political nature, but have to do with development as well. We should remember that this principle has been applied with a certain amount of success in the European Community and the Pacific basin. The most apparent success in that region is found in the wage regimen. For example, in Taiwan, Singapore, and South Korea wages are expected to reach the European levels by the year 2000.

It would then seem reasonable to reduce the negative effects of the agreement on the workers of both nations, which stem from the competitiveness of cheap labor, and to promote market growth to create new employment, discourage migration, and encourage the instance, less opportunities for a conflict around the textile market, and more opportunities for redefining and specializing productive activities.

There are no preestablished rules for a beneficial and equitable agreement. But if we understand the concerns that stem from the various development stages, it would seem reasonable to propose for each sector an outline that is sensitive to differences, able to design specialization and complementing mechanisms, and which provides for the creation of employments and the eventual balancing of wages. The challenge is in fact formidable, but it is not impossible. It is essential to keep in mind the common long-term interests and to avoid being blinded by or becoming a victim to attractive short-run solutions.

The Importance of the United States Congress

The current debate concerning the implementation of a Free Trade Agreement (FTA) between Mexico and the United States of America is undoubtedly controversial in both countries. The topics to discuss and the interests that will be negotiated are diverse and are of great relevance for our future.

The role of the Congress will be of fundamental importance, but it must not be forgotten that it is a bilateral agreement on trade. Therefore, the attempts of some interest groups to condition the signature of the agreement on the inclusion of areas sensitive to Mexico, and considering only the United States perspective,

could obstruct the signing of an agreement beneficial to both countries, and not necessarily guarantee the solution of common problems.

The Energy Sector

The Mexican Ministry of Energy, Mines, and Public Enterprises (SEMIP) announced on June 13, 1990 the status of the energy sector with regard to the Free Trade Agreement (FTA). An unclear text pointed out that the energy sector financing sources would not change under a FTA because this is a strategic sector (SEMIP Communiqué, June 13, 1990). Different SEMIP and PEMEX (Mexican Petroleum) officials reiterated subsequently that the federal government would adhere to the Constitution (Articles 27 and 28), where it is stated that "the petroleum industry will remain under government control, and this includes all petroleum related activities, from prospecting and well drilling, to extraction and commercialization." However, some modifications to the PEMEX workers' collective contract during 1989, as well as changes in investment regulations of industries such as petrochemistry, and the new financing possibilities of the energy sector as described in the National Energy Modernization Program, 1990-1994, refute the first statement and clearly reflect a privatization process, similar to what has occurred in other public sector entities.

The changes in the PEMEX workers' collective contract smoothed the way for personnel cutbacks in that enterprise, and thus limited the power of the union and facilitated private capital investments in that industry. Once the above was achieved, PEMEX analyzed the best way to promote national and foreign capital co-investments in activities such as oil drilling and domestic commercialization of oil products (construction of pipelines to distribute oil and oil products), besides approving a new classification which considers 51 basic petrochemical products as secondary, and modifications to the regimen of foreign investment participation.

Regarding secondary petrochemistry, foreign capital may now participate with up to 40 percent of total capital in Mexican enterprises that produce any of the 65 products classified as secondary, and with up to 100 percent in products which are not considered as such. It is important to emphasize the new financing modalities, such as the payment of basic petrochemical products in advance, and a project to lease some PEMEX production plants and thus obtain resources that allow completing the construction of the Morelos, Pajaritos, and Cangrejera petrochemical complexes.

The opening of new spaces for private capital within the energy sector (including certain activities within the electric power industry) is part of the economic policy of President Carlos Salinas de Gortari, but it is also a response to the financing problems this sector faces, since private investments will make possible the investments required. Finally, it seems to be a response to the pressing requests of foreign investors regarding opportunities to invest their

capital mainly in industries as profitable as the secondary petrochemical industry, which is in fact among the sectors proposed for the Free Trade Agreement.

Telecommunications

Similar to the bilateral agreements between the United States and Israel and the United States and Canada, which include statements on trade of services, in the case of Mexico certain items of this sector will be included. Trade of services was part of the agenda at the GATT Uruguay Round due to pressure initially by the United States, which is the major service vendor. But since the Round failed, the objectives of the United States are likely to be interposed as bilateral negotiation issues. The chief objective of the United States regarding service trade is to make use of its comparative advantage as major exporter, as well as its installed capacity through transnational enterprises so as to increase its sales of productive services and information. In the case of a FTA, the United States will attempt to specify this orientation in order to become our major supplier of these items and increase its sales.

Telecommunications trade with the United States has big advantages for Mexico. It may provide access to the modern technology generated by the revolution of services in the U.S. and Mexico could use it to modernize its productive plant. The latter is a basic requirement of a new project for the Mexican society. Our country would save decades of creating new knowledge and could make use of the human, cultural, and scientific resources of the U.S. This capital advantage is reduced by the risks involved in obtaining the resources through market laws and the political rules in force in the international context.

In the case of Mexico the economic risks involved in negotiation on this matter stem from two issues: a) The technological development imbalance which would turn the United States into the exporter and Mexico into the importer, and b) The imbalance of regulations between the two countries, which have divergent objectives. Moreover, the implicit and explicit risks for the national sovereignty, which stem from cultural penetration and from the information given to foreign investors about our national estate, need to be added to the above.

As to the first issue, Mexico should obviously try to include the objectives of national economic development as prerequisites of any agreement, since telecommunications are considerably backward in Mexico. Instead in the United States sources have undergone a revolution that facilitated an efficient economic transformation. Besides negotiating skills, the second issue requires a detailed knowledge of United States law and the design of Mexican standards to take advantage of telecommunication services in order to modernize the productive plant without compromising its sovereignty and the development project.

The former presents some difficulties. Regulations of telecommunications in Mexico are not oriented towards foreign trade; they have social and collective rather than mercantile objectives, and are directed toward domestic trade. The

United States instead, has a specific legislation that addresses international telecommunications trade; it protects the interests of its transnational corporations and anticipates legal reprisals against countries that do not follow its rules.

Mexican legislation does not allow majority direct foreign investments in telecommunications. The latter have been deprived of rules but have not yet been open to external competition. When this happens, the United States will surely request to be the favored nation and Mexico will therefore have to make the necessary reforms that make its development project feasible, rather than satisfy the requests of its partner. If the Foreign Investment Law is abrogated, and foreign participation is permitted in capital intensive and high technology areas such as telecommunications, then Mexican entrepreneurs could be at a disadvantage as compared to transnational enterprises, and thus Mexican participation in this strategic sector could disappear.

It is evident that the negotiating expertise of both countries is unequal. Initially United States promoted the liberalization of trade of services and has fostered official and academic studies on this subject in order to disseminate its position. These efforts have been minimal in Mexico. Moreover, the United States has subscribed bilateral agreements that provide valuable experiences and are managed by government agencies. Mexico, in turn, is making its first moves in this direction and the competent public agencies have been more involved in technical aspects than in the commercial dispute over services. Given this situation, a greater participation of the involved sectors is required so that risks are assumed with a prior consensus.

The Assembly Plants

One might think that the assembly plants or "maquiladoras" are bound to become less relevant in view of a Free Trade Agreement between the United States and Mexico, since the latter will eventually extend throughout the country the legal exception regimen which was the core of the "maquiladora" program. Some of this may be true in the long term, after the remaining tariffs between both countries have disappeared. But the long term depends on what is done in the short and medium terms, when the "maquiladora" industry may play a critical role in shaping the new industrialization model.

The new legal frame of the "maquiladora" industry has already created "shared production and market systems;" it went ahead of the possible subscription of a Free Trade Agreement and it will provide its content. The "Decree to Promote and Operate the Export Maquiladora Industry," of December 22, 1989 opens new economic activity areas for this industry which could contribute to a closer integration between Mexican and United States productive structures. This Decree serves as a guide for the establishment of incipient coproduction models involving domestic and foreign industries, which could be

broadened and detailed either within the same "maquiladora" program or outside it, making use of the various trade opening modalities currently in force.

The decree ends the enclave nature which so far has characterized the "maquiladora" industry in Mexico, because on the one hand it promotes the links between "maquiladora" and domestic industries; and on the other, it permits these enterprises to sell part of their production in the domestic market.

The Regional Dimension

The need to promote and carry out a diligent and detailed negotiation that reduces the possibility of negative contingencies to a minimum has been stressed. This proposal is centered around the sectoral composition of the Mexican economy and its various branches. However, besides the sectoral discussion, it is of primary importance to include the territorial dimension of economic processes in the negotiation.

The remarkable regional inequality which persists in our country is not less serious and does not pose less challenges to negotiations than the coexistence, within the secondary sector, of large enterprises with modern productive systems, and a universe of medium-sized and small enterprises which are labor intensive and use inefficient productive processes.

The regional polarization of the primary sector, in turn, adds complications to the already difficult negotiations which characterize this sector. Exports of vegetables and other agricultural products to the United States come from well located areas with an adequate infrastructure, while agricultural production in the remaining areas is mostly self-subsistence oriented and therefore it is difficult to include it in the FTA. Also, the inclusion of some economic sectors in the FTA is of primary importance for some regions. Such is the case of services for the northern border, since this region has great comparative advantages for delivering a wide variety of services to the United States population.

There is no doubt about the fact that, once implemented, the FTA will modify the current geographic distribution of economic activities since it will have a different impact in each region and could have devastating effects on some of them. Nevertheless, if the regional dimension is included in the negotiations and if these differential geographic effects are taken into account, the FTA could be an adequate and powerful tool for economic redistribution and reorganization in our territory.

The aim is to prevent the possible negative impact that the FTA could have on the most backward regions and at the same time to reconsider the economic trends that the FTA will trigger so as to direct them towards reducing regional inequalities. In addition the bases can be established for constructing a binational infrastructure that is able to benefit both countries.

Social Implications

The effects brought about by the economic opening targeted to setting the conditions for a Free Trade Agreement with the United States have evident repercussions in the social sphere of a country like Mexico, with 81 million inhabitants, from which nearly 50 percent survive in poverty. Although the official discourse tries to emphasize the economic advantages of this initiative on the one hand, and on the other it limits its scope to the mere commercial aspect, up to now social repercussions--although difficult to foresee--point towards a greater gap between the poor and the rich.

Tariff reduction and the elimination of import permits are shaped by means of incorporating into the domestic supply a series of sumptuary commodities which have increased the consumerist attitude of the strata with the greatest purchasing power in the country. Purchases of luxurious automobiles, sophisticated home appliances, food products, etc. show on the one hand, a lack of identity of the upper class--since it only considers itself as such because it believes that it may be compared to its foreign equals--and on the other, it nullifies the austerity effort and sacrifice of the remaining population, which have made possible the generation of foreign currencies expecting that they will be socially and rationally used.

This perspective makes it essential to set priorities based on their specific social benefit, during the negotiations and definition of the United States-Mexico Free Trade Agreement.

If on the contrary, the cost-benefit analysis shows adverse results, the terms of the agreement should be reconsidered. An aggravation of social contradictions in a country like Mexico, which has become increasingly pauperized during recent years, could easily trigger socio-political conflicts of unforeseeable consequences both for the domestic and the bilateral contexts.

We do not question the need to integrate our country into the economic globalization process via the FTA, but we insist that the *sine qua non* for its success are the practical effects understood as the possibility for the average Mexican to improve his/her living conditions.

To conclude, we would like to add an additional concern, expressed as a question. Recognizing that North American society depends on its participation in consumption logic, and in contrast it has an almost nonexistent participation in political processes: could we be running the risk that as the FTA integrates us to the ideal of the North American consumption society, our necessary participation in favor of the democratization of Mexico will therefore vanish?

Conclusions

It is evident that the Free Trade Agreement should not be considered as a panacea either for the United States or for Mexico. It is naive to view it as the "invisible hand" that will solve all problems -- this could have very negative consequences. It rather has to be understood as a framework for involving groups with defined interests. If we are not serious about forming the greatest market of the world, in which an adequate consumption of its participants is assured, and its cultural diversity is expressed in a mutual enrichment, the result would only be conflict, struggle and discrimination.

The emergence of problems involving collective awareness and solutions, as is the case of ecology, drug traffic, and migration, will possibly allow broadening of the criteria and goals that guide the free trade agreement.

Afterword

Rafael Rangel Sostmann, President

Instituto Tecnólogico y de Estudios Superiores de Monterrey

With a probable Free Trade Agreement (FTA) between Mexico and the United States near at hand, it is important for researchers and academics in both countries to supply information that will provide a foundation for those who will influence and make decisions on what course this economic integration will take.

The opinions in this document give a clear idea of the vision of those who have the day-to-day job of defining the coming world.

The document attempts to show the impact and implications of the FTA on different sectors. It is a recognized fact, for example, that a "silent integration" already exists, with the *maquiladoras,* which employ 500,000 Mexicans and account for 80 percent of total Mexican exports in manufacturing, and with today's intense trade between our two countries, especially in the border zones. In many cases, the FTA will legitimize a considerable part of this "underground" activity.

But the FTA will also open doors to new opportunities for both countries. And, although initially it might appear to be a threat, especially in some sectors, most people recognize that in the mid and long term there will be a more favorable balance.

It is understood that the FTA will focus strictly on trade negotiations and does not pretend to settle all the sizeable issues between the two countries. Nevertheless, it is clear that the FTA must consider cultural, social, political, educational and ecological factors as well as economic implications.

The FTA will undoubtedly mean a significant increase in investment, commercial growth, benefits of scale economies, specialization, etc. But it also implies a great effort by both nations to minimize negative impacts, avoid the protectionism traditional in certain sectors, standardize quality, create infrastructure needed for integration, and design the legal framework and mechanisms that will make the FTA efficient, fair, and respectful of national differences.

In addition, there will be a need for media coverage to inform the public, training for workers and managers who will be suddenly thrust onto a different

economic and industrial stage, and development of future leaders in both national communities who have a different view of the world that awaits them.

Our countries are on the threshold of an adventure we will share in the coming years—an exciting adventure rich in challenges and opportunities. What will determine its success will be the talent and decision of the peoples of Mexico and the United States.

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The **Regional Studies Center at Baylor University** in Texas is an interdisciplinary unit which supplements and enriches the academic departments, institutes, libraries, galleries, museums, and lecture series of the university. Beyond the campus, the program interacts with the public, policymakers, foundations, and other research centers—in part through a growing and adaptable consortium of scholars such as those from three countries who contributed to the production of this study. The center was created to study, interpret, and document the unique perspectives which Texas derives from its position as the meeting place of several distinct regions; to fund and administer research projects designed to increase knowledge and understanding of both theoretical and applied regional issues; to utilize human resources and the intellectual materials available through libraries, museums, and other repositories to gather information; to contribute to the fund of knowledge available to scholars and the public through the program's research, exhibits, and publications; to develop an interdisciplinary curriculum of instruction and research on regional topics; to cooperate and interact with other regional studies programs in order to share experiences and enhance the significance of the regional perspective; and to present the findings of the program's projects to the general public, specialists, and agencies charged with shaping public policies of the state and nation. The five main activities of the center—research, publication, programming, exchange, and faculty development—are concentrated on policy studies, education, community studies, the natural regions of Texas, cultural pluralism, and North American studies. The first director of Regional Studies was Glen E. Lich, currently of the University of Winnipeg.

CISE, or the **Centro de Investigaciones Socioeconómicos**, at the Autonomous University of Coahuila was founded in January 1990. The center is committed to regional research in the areas of economics, history and education. Its main objectives are: to carry out studies and research projects in the areas of economics, history, and education; to promote human resource development in the field of research; to support the university's teaching activities, mainly on the graduate level; to publish its research findings; to promote collaboration and scholarly exchange programs with other research and higher learning institutions; and to seek links with the public and private sectors in order to provide solutions to issues facing the state of Coahuila. Current projects include: Regional Distribution Patterns of Coahuila's Industry; The Structure of the Maquiladora Export Industry in Coahuila; Small and Medium-Size Industries in Coahuila; Comparative Study of the United States' and Mexico's Industrial Structures; Analysis of Mexico's Northern Border States' Trade Balance; From Liberalism to Revolution: Porfirista Education in Central Coahuila, 1876-1913; and Coahuila's Industrialization in the 1980s and U.S.-Mexico Economic Integration.

CISEUA, or the **Centro de Investigaciones sobre Estados Unidos de America** was officially created on 10 February 1989, growing out of interest raised by a conference entitled, "Mexico, Latin America and the United States," which was organized by an inter- and multidisciplinary group of academics at the National Autonomous University of Mexico. The Center was organized by many of the same group who had been involved with the now defunct Center for Research on Anglo-American Studies of the College of Philosophy and Letters (1964-1972) and the Center for the Study of the United States of North America of the University Program (1983-1985). The Center's research is divided among the three following areas: 1) the United States; 2) Mexico-United States relations; and 3) the United States in an international context. The Center focuses on multi- and interdisciplinary research on the United States, with a strong social focus concerning the United States relations with Mexico.

COLEF, or the **Colegio de la Frontera Norte** is a research and graduate studies institution at Tijuana, Baja California, Mexico. The main objectives of COLEF are to promote understanding of the Mexican border regions from various perspectives, e. g., social, economic, cultural, demographic, urban and political; to promote the development of these regions; and to promote their interconnections, their relations with national development plans, and their relations with the United States. It hosts about half a hundred researchers in several areas of social sciences. It has received some forty visiting professors and researchers for different periods of time between 1988 and 1992. Research is organized in seven departments: Social Studies, Cultural Studies, Economic Studies, Public Administration Studies, Urban and Environment Studies, Population Studies, and United States Studies. The institution offers two masters degrees, one in Regional Development and the other in Industrial Economics with a total enrollment of about forty students every two years. Research findings are available through a series of publications including book series, working papers, popular bulletins, and a refereed journal.

The origin of COLEF dates to initiatives at Colegio de México to create and decentralize an area of border studies to constitute the Centro de Estudios Fronterizos del Norte de México in 1982. Later, in 1987, it became Colegio de la Frontera Norte. In addition to the main facilities in Tijuana, COLEF has coordinating offices in Mexican major cities in all states along the border: Mexicali, Baja California; Nogales, Sonora; Ciudad Juárez, Chihuahua; Piedras Negras, Coahuila; Nuevo Laredo and Matamoros, Tamaulipas; and Monterrey, Nuevo León. Colegio de Mexico also hosts a COLEF office of representation to handle linkages with academic institutions, social organizations and governmental agencies in Mexico City.

The **Center for Inter-American Studies and Research** at the University of North Texas has three main objectives: 1) promote research through the acquisition of external funding for projects focusing on the socio-economic and political problems of North, Central, and South America; 2) coordinate undergraduate and graduate major programs within existing departments for

students interested in problems of this region; and 3) develop relationships with other institutions, both public and private, for the exchange of scholars and students as well as research in progress, joint conferences, etc. The faculty of the Center are actively involved in inter-disciplinary research concerning the nations of North, Central, and South America, bringing speakers to the University, participating in conferences, and establishing relations with other Universities and Institutes in Canada and Latin America.

The **Centre for North American Studies** at the University of Winnipeg is involved in teaching and research on the North American region. Newly established, it will consist of three elements: (1) a Summer Institute where mid-level policy makers, professors, and students from North American nations meet for two weeks each year to discuss an annual topic--such as multicultural policy, migration, the environment, education, or development--from the interdisciplinary perspectives of society, resources, the economy, laws and policies, and public opinion, as well as from the perspectives of the three countries; (2) a clearing-house for developing a network of over forty universities and research institutes in Canada, the United States and Mexico, and Central America to encourage continual, low-cost, and work-focused exchanges of students, teachers, and information; and (3) a research-management component to direct cooperative public research--impact studies, needs assessments, and development plans.

The **Institute for Regional Studies of the Californias** at San Diego State University was founded in 1983 in recognition of both the wide diversity of border-related activity in the university and the need in the larger community for a more concerted approach to issues, problems, and prospects. The university has in recent years provided a broad-based forum where academics, business and community leaders, public officials, and technicians from both sides of the border have come together on "neutral ground" to discuss common concerns. The existence of a specialized institute to bring together the many and diversified resources of the border region's largest university and largest metropolitan area enables SDSU to expand this function and carry it out more efficiently. The Institute's approach is to form multidisciplinary teams of experts—optimally from both sides of the border—capable of identifying and applying state-of-the-art research and technology to the solution of the region's problems. And, where appropriate, the Institute facilitates collaborative ventures in binational, trans-border coordination and planning, which in turn can result in a more efficient allocation of the region's resources. IRSC has a number of objectives and functions which are to: (1) facilitate the efforts of public and private agencies and institutions in the task of exploring and understanding the many issues, problems, and opportunities of the United States-Mexico border region; (2) maintain and improve communications between public- and private-sector agencies on both sides of the border via a well-developed information infrastructure—to include frequent briefings on border issues to government officials and agencies at all levels; (3) serve as a clearing house of information on public institutions, events, research and special facilities related to transborder matters such as energy, water and land use, demography, economic development, and others, providing ongoing liaison between governmental and other entities to support collaborative

ventures in research, technology development and transfer; (4) contribute to the effective use of educational resources among the binational region's universities and research institutions. This is accomplished through development of collaborative research projects and exchange cooperation agreements with educational institutions in Mexico; (5) provide a convenient mechanism for organizing and administering field trips and internships with other institutions in Mexico. The Institute is directed by historian Dr. Paul Ganster, Associate Director is Dr. Stephen R. Jenner, a management specialist, and Senior Research Associate is Mr. Clifton Metzner, a former diplomat and expert on environmental issues. IRSC has an ongoing publications program that includes the Border Studies Series, the Border Issue Series, and miscellaneous publications. In addition to these items, IRSC also publishes an occasional newsletter, the Mexico Policy News for PROFMEX, the Consortium of U.S. Research Programs for Mexico. Current IRSC research and outreach programs include the following: The California-Mexico International Business Education Program, The Border Water Quality Working Group, The San Diego-Tijuana International History Fair, and Border Literature and Culture.

The **Southwest Center**, a research unit of the Faculty of Social and Behavioral Sciences at the University of Arizona, offers a variety of programming in fulfillment of its three-part mission of research, service, and publication in southwestern regional studies. *Journal of the Southwest,* the scholarly regional quarterly associated with the Center, publishes broadly in regional history, anthropology, ecology, and related subjects. The overall aim of the center is to provide a coherent and stable opportunity for cross-disciplinary regional studies through a vigorous publication program; support of scholars pursuing research in Greater Southwest topics; and campus-wide and public outreach programming, including conferences, seminars, and cultural events. The center sponsors the Southwest Center Book Series with the University of Arizona Press. Particular attention is focused on developing and maintaining ties of association, cooperation, and exchange with Mexican academics and public officials and in cooperating with regional studies programs throughout the United States. The center actively seeks outside support for its research, programs, and publications.